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The Effects of Written Modeling and Reinforcement of Self-affect References in Unstructured Personal Documents

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THE EFFECTS OF WRITTEN MODELING AND REINFORCEMENT
ON SELF-AFFECT REFERENCES
IN UNSTRUCTURED PERSONAL DOCUMENTS

by
Carol M. Collins

A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
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1976

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A special debt of thanks is extended to committee chairman, Dr. Manuel Silverman. He provided guidance and inspiration, and without him, the project might not have been realized.

In the initial planning stage, I discussed the topic with Dr. Sidney Jourard, at the University of Florida. He offered advice and encouragement in his characteristically open manner. It was a personal blow to learn of his death last year.

C. M. C.

FOREWORD

For a number of years, in my beginning course in education, I have asked my students to write down their thoughts and feelings in "communication books". I picked up the notebooks at regular intervals and responded genuinely and spontaneously, in non-judgmental fashion. Over the course of the semester, communication was established between my students and me, in writing. Free to write when and as they wished, with acceptance and confidentiality assured, the students often expressed their thoughts and feelings about people close to them, about events that made deep impressions on them, about the tasks involved in the pursuit of formal education, and about their future. These are some examples of their responses:

(Student 1)

My birthday is this Friday. I really don't want it to come. I'm very depressed and I'm not in the mood for a birthday. I don't know if it's the age that's bothering me or what. I don't think I'm looking at things realistically. I'm having a hard time getting out of my depression, a harder time than I've ever had before. I don't understand myself now. Izzi keeps telling me I'm the only one she knows that always has my head together. Boy is she wrong. I may act as if I know what I want but I'm so mixed up!

(Student 2)

I want to write a letter, but there's no one who'll understand exactly what I am going through. I didn't think it was possible to love someone this much, and not be able to do anything about it, and know or feel you know he's not there. Oh well, I feel better now that I wrote it. At least some one knows.

(Student 3)

Sometimes I think I'm out of place in this class. A lot of people seem to have very definite ideas about teaching and are positive about their future profession. I'm going into education as an exploratory field. If I really enjoy it, I'll stay in for my career. I don't know what I'll do when I leave college. If I'm going to have to do something the rest of my life, I want to enjoy it. It worries me a lot that I'm 19 and a half and don't know what I'm going to be. Most people I talk to have very definite ideas about their future...I really enjoy school...if I stuck around at my (summer) job all year I'd earn around \$10,000. That's a lot of money for a kid, but I feel I need the education much more than the money...but it still worries me that I don't have definite future plans.

Since I am acquainted with the students through classroom activities, it seems as if we are together when I read their messages. I "listen" to what one is saying and try to respond as I might if he were with me. Encouraged by feedback from students, I see that written communication can be helpful to them. Because I wondered if my responses prompted students to write more about themselves, expressing their feelings more fully, I decided to undertake this study.

VITA

Carol McDowell Collins was born in Bay City, Michigan. She attended high school at St. Mary Academy in Monroe, Michigan, and at St. Mary's Academy in Windsor, Ontario. She earned the degree of Bachelor of Science in Education in 1939, and the Master of Education degree in 1941, from Wayne State University.

She taught in the public schools in Detroit, Michigan, from 1939 to 1941, and for the next several years, while raising a family, taught in the Adult Education program of the Detroit school system. She was also active in the field of educational travel and institutional camping. In 1963-64 she taught at Angel Guardian Orphanage in Chicago. From 1964 to 1967 she attended Northwestern University as a special student, concentrating on guidance and counseling. While there, she worked with Dr. Frank Miller, administering tests to clients, and analyzing and interpreting test results. She attended summer school at San Diego State University and at the University of Bordeaux (France).

In 1967, Carol Collins entered Loyola University as a candidate for the doctoral degree. She worked in the counseling center at Elmhurst College as a part of her field experience, and joined the staff of the Education Department in 1969, continuing at Elmhurst College, where she is presently employed. Each semester she has taught Guidance and Testing, has interviewed prospective entrants to the Department of Education, and has advised a group of Freshmen, in addition to teaching education courses. She has been a member of the American Personnel and Guidance Association since 1968.

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CHAPTER I

INTRODUCTION

I. Background of the Problem

In spite of the vast amount of writing that is done in the course of formal education, very few cases have been reported of the establishment of two-way written communication between student and teacher or counselor. Personal relationships between individuals have been formed on the basis of an exchange of letters, and many of these relationships have been therapeutic. Nevertheless, the literature on written communication, undertaken for the purpose of initiating or sustaining therapy, is sparse.¹ Furthermore, the question of whether a therapeutic relationship can be established on the basis of the written word, has not been put to scientific scrutiny.

The changes in verbal expression which occur in counseling have been extensively documented in the literature² and attempts have been made to explain the reasons for the change. A prominent view is that proposed by Rogers³ that human beings have the potential to move in self-enhancing directions, and that inappropriate behavior is changed in the process of a facilitative relationship.

¹See Chapter II of this Dissertation, Part V, pp. 44-56.

²See Chapter II of this Dissertation, Part IV, pp. 35-44.

³Rogers illustrates his view of the process of change in therapy through excerpts from interviews with "Mrs. Oak". C. R. Rogers, On Becoming a Person (Cambridge, Mass.: Riverside Press, 1961), pp. 107-124.

Learning theorists, notably Bandura (1969),¹ have noted that individuals tend to adopt behavior patterns which have reinforcing qualities, and developmentalists² have described how these behaviors are assimilated and accommodated into self-structure. The experimentation on verbalizations³ gives credence to the view that individuals may change what they say as the result of interaction with models.

In the counseling, or therapeutic relationship, whether it be between therapist and client, or simply between teacher (a helping person) and student, words spoken, written, or even vaguely perceived, are the basic tools through which therapeutic change may occur. Martin Buber's concept of the I-Thou dialogic relationship is an important contemporary model for human interaction (Johannesen, 1971).⁴

Because psychological education appears to be moving into the classroom (Alschuler and Ivey, 1973),⁵ teachers need to know ways to help students learn about themselves. Self-awareness, or the ability to accu-

¹References given in this manner [author(s) and year] can be found in the Bibliography at the end of this Dissertation.

²J. McV. Hunt, Intelligence and Experience (New York: The Ronald Press Co., 1961). Hunt refers extensively to Jean Piaget.

³See Chapter II of this Dissertation, Part IV, pp. 35-44.

⁴Johannesen says that the central elements of dialogic communication are treated under "such labels" as authentic communication, conversation, therapeutic communication, nondirective therapy, presence, participation, existential communication, encounter, supportive climate, helping relationship, and loving relationship. Richard L. Johannesen, "The Emerging Concept of Communication as Dialogue," The Quarterly Journal of Speech, 47 (December, 1971), pp. 373-382.

⁵Alfred S. Alschuler and Allen E. Ivey, "Getting into Psychological Education," The Personnel and Guidance Journal, 51 (May, 1973), pp. 682-691.

rately perceive one's own values, interests, attitudes, etc, is deemed to be one of the attributes of mental health.¹ By explicating his concerns, a student may be better able to understand himself.

Teacher-counselors have used written communication in the course of affective-education programs,² and have felt that the effort had merit. Students wrote about their personal problems and concerns, and received helping responses. Whether the technique of two-way communication in notebooks actually helped students move toward resolution of their concerns remains a question.

This study attempts to determine whether certain responses made to students' written messages have an observable effect. In particular, the study focuses on affective responses, that is, statements in which students describe how they feel about certain events or people in their environment.

In a review of the literature on "The Teaching of Affective Responses", the authors warn:

Lest the reader emerge from a reading of this chapter with a pessimistic view of the research on affective responses, it should be emphasized that this is a relatively new area in educational research and practice.³

The present study undertakes to measure change in affective responses under conditions of treatment and non-treatment, with the knowledge shared by Kahn and Weiss that "The instrumentation and quantification procedures

¹See Chapter II of this Dissertation, Part III, pp. 25-35.

²See Chapter II of this Dissertation, Part V, pp. 44-56.

³S. B. Kahn and Joel Weiss, "The Teaching of Affective Responses," in Second Handbook of Research on Teaching, ed. by Robert M. W. Travers (Chicago: Rand McNally & Company, 1973), p. 789.

in the study of affective outcomes are perhaps more complex than they have been in the study of cognitive outcomes."¹

II. Statement of the Problem

This research problem is developed in a framework of certain assumptions about the purpose of "helping", and about the helping process itself:

1. Self-awareness is an important component of personal growth.
2. Movement toward awareness of self is facilitated by the expression of statements about the self.
3. Individuals will reveal themselves to another when the conditions for a facilitating relationship exist.

The problem is to see whether in a helping relationship between a teacher and students in a classroom, certain techniques, namely, reinforcement of affective responses, and modeling self-disclosure, will increase the production of self-affect references. The unique property of this experiment is that the effort is made through written communication rather than oral.

Questions related to the central problem of the study are also raised:

1. If students increase their production of self-affect references under experimental conditions, do they also report that

¹Ibid., p. 789.

they are willing to disclose themselves more readily to "people in general" and to "teacher"?

2. Do students who receive the experimental treatment perceive their teacher differently than those who do not?

The procedure used to address the problem is based on social learning principles, namely, reinforcement of affective responses made in the course of unstructured personal writing, and modeling self-disclosure. The vehicle for interaction between student and teacher is the C-book, a notebook in which two-way communication is established. Teacher response includes reinforcement of student self-references by selective paraphrasing, and model statements written in the form of self-material relevant to expressed student concern. Analysis of the communication content was performed by computer. An experimental and a control group were designated. In the experimental group, student writing-about-self received written modeling and reinforcement responses from the teacher. The control group received no response.

III. Hypotheses

The following specific null hypotheses were tested:

Hypothesis I. There is no difference between groups in the equality of proportions of self-affect-references to the number of sentences in Time I and Time V.¹

¹Time elements in the experimental design are shown in Table A, page 129.

Hypothesis II. There are no differences between mean responses of the E-group and the C-group on the dimensions of Total Self-Disclosure and Disclosure to Teacher as measured by the Jourard Self-Disclosure Questionnaire (25-item).

Hypothesis III. There is no correlation within the E-group or the C-group between change in scores on Total Self-Disclosure and Disclosure to Teacher as measured by the Jourard Self-Disclosure Questionnaire, and change in the number of self-affect references produced in C-books.

IV. Definition of Terms

Terms mentioned in the hypotheses include the following: written communication, reinforcement, modeling, and self-affect references. These terms are defined and described here, as they are used in this study.

Webster defines communication in a general sense as "a giving or exchanging of messages by talk, gestures, writing, etc." In therapeutic communication, as used in counseling, the messages received by the counselor from the client are understood and accepted, and then a message is conveyed to the client that this condition exists. In this study the term is used in the therapeutic sense. A student writes his thoughts and feelings in a notebook reserved for the purpose. The instructor reads the message, seeks to understand it, and conveys in writing the notion that the student's expressions are understood and accepted.

The word "reinforcement" is used in the psychological sense, as a reward. Brammer and Shostrom (1960)¹ begin their description of reinforcement by saying it is a rewarding condition which occurs when a stimulus-response sequence has been completed. In this experiment, the reward used is attention to self-statements where in the judgment of the experimenter the student expresses a state of emotion that he holds. The attending response made by the experimenter to an expression of self-affect is the reinforcement. A response is made to each separately defined idea, usually contained in a paragraph. The response is paraphrastic, indicating that the communication is understood. No judgment is made: what the student says is accepted by the instructor.

The term "modeling" is used here in the sense of providing an example with the expectation that imitative behavior will occur. Where a student expresses a personal concern, the instructor may then write about an analogous situation of his own, and express his feelings about it. The experimenter thus models self-disclosure. Modeling as a social response pattern has been described at length by Bandura (1969) and Bandura and Walters (1963). While reinforcement responses are written in the second person in this experiment, modeling responses are expressed in the first person.

Examples of statements made by students in their written communication to the instructor are provided below. In each case the students' reflections are followed by examples of a reinforcement response and a modeling response.

¹Lawrence M. Brammer and Everett L. Shostrom, Therapeutic Psychology (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1960), p. 43.

(Student 1)

After classes, working just wears me out, but maybe it'll get better after I work a while and get used to it. It makes me feel good to work, because then I won't feel so dependent on my parents. I really feel bad when I need to borrow money. Working may tire me out, but it gives me satisfaction.

Reinforcement response:

It's really great to feel you can be independent. The work's hard, but it's worth the effort.

Modeling response:

My teaching is work that provides a real challenge to me, much more so than staying at home and being a housewife. I get tremendous satisfaction out of seeing students respond with enthusiasm to the problems at hand, and noting their personal growth. To me, teaching is so rewarding I can hardly call it work.

(Student 2)

This morning in the Union we were all talking about premarital sex. I personally don't believe in it. I feel that being a virgin is the way to be when getting married. Marriage in my mind is the ultimate in life and love and sex is one of the benefits of experiencing this ultimate (marriage) because sex is making love. My friends were shocked that I'm still a virgin after going with someone for five years, but my boyfriend feels the same way.

Reinforcement response:

You and your boyfriend seem to respect each other and not want to "own" each other to the point of a smothering relationship. You find that not everyone shares your principles, but you feel this is right for you.

Modeling response:

I guess I'm independent, too. At a cocktail party everyone can be drinking hard stuff and I don't, just because I don't like the taste, and besides, I like to know what I'm doing and saying. Drinking 7-Up seems right to me.

(Student 3)

I really feel I put out the most effort in our group and it makes me mad to see some people sit back and watch 1 or 2 do all the

work. I spent time at the library to put the handout together and ran around getting material for the bulletin board and it looks like everybody gets equal credit.

Reinforcement response:

You like to accomplish something, but don't want to be a patsy for others who slough off. You want to be recognized for what you do.

Modeling response:

Sometimes I get stuck with work that I feel should be shared, and it bothers me, too.

A "self-affect reference" (SAR) is defined as a sentence in which one or more personal pronouns are used, plus one or more words which express an emotional state. A dictionary of the pronouns and emotional words used in analysis of the content of the students' communications is included in the Appendix (pages 127-128). The emotional words are divided into two categories, positive and negative, for purposes of this study, but the term SAR includes both classifications.

An "affect" word is defined as any word which implies love or affection, happiness or cheerfulness, enjoyment or pleasure, hope, competence, positive commitment, fear or anxiety, doubt or indecision, dismay or sadness, pain, anger, or quarrelsomeness (Crowley, 1970).

V. Limitations of the Study

Certain limitations are inherent in the design of the experiment, and should be mentioned:

1. The sample consists of 42 students, mostly between ages 18 and 22, in a small, suburban college. Care should be taken in generalizing to any larger group or population.

2. While the experiment was to be carried on within an interpersonal relationship formed through written messages, the experimenter is also the teacher, and verbal and visual interaction effects are inevitable.
3. By choosing automated analysis over manual, the experimenter limits the unit of analysis to immediately identifiable contingencies, thus risking including units that do not reflect the personal meaning explored, and omitting units that reflect the meaning sought, but where the meaning is expressed differently.
4. Verbal reinforcement studies have been performed largely in the oral mode. Little study has been given to the equivalency of written and oral communication. Furthermore, as yet, there has been no follow-up on the results of this study in terms of behavior, etc. Therefore, interpretation of results should probably be centered on visible evidence, and judgment deferred on the interpretation of meaning. Caution is therefore advised in using these results.

VI. Organization of the Study

The problem and the hypotheses have been stated in Chapter I. In Chapter II, literature pertaining to five facets of the problem is reviewed. Chapter III describes the steps taken to test the hypotheses, and in Chapter IV results are shown, examined, and discussed. The problem and the results are summarized in Chapter V, and inferences are drawn.

CHAPTER II

BACKGROUND OF RESEARCH AND THEORY

I. The Teacher's Role in Psychological Education

Along with increasing attention to implementing the aim of educating the "whole person" (Krathwohl, Bloom and Masia, 1964), a movement is under way to help teachers learn skills to enhance their students' personal development. Psychological education which, in the words of Cottingham (1973) "is the personal development of the clients through educative or preventive experiences", focuses on laboratory work enabling students "to be aware, to identify feelings, to accurately perceive people, and to better understand themselves."¹ The notion has been stated also by Sprinthall (1973) and by Sprinthall and Erickson (1974). Gerald Weinstein (1970) suggested that the model of the counselor for the future is "a change agent whose specialty is psychological education, who is engaged in curriculum development, instruction, and teacher training."²

Whether teachers can or should teach the skills necessary to facilitate psychological growth, a task which until recently has been considered as therapy, is an open question. While a study by Deuilio (1970)

¹Harold F. Cottingham, "Psychological Education, the Guidance Function, and the School Counselor," The School Counselor, 20 (May, 1973), p. 341.

²Allen E. Ivey and Gerald Weinstein, "The Counselor as a Specialist in Psychological Education," Personnel and Guidance Journal, 49 (1970), p. 105.

showed that there was no evidence against having a student counseled by one who also teaches him, Stefflre and Grant (1972) questioned the wisdom of having the same person play both roles.¹ Patterson (1971) found that the basic principles of good human relations and counseling are the same, but was reluctant to see a teacher questioning or probing into the personal affairs and feelings of a pupil, making interpretations or giving advice. His view was that "mental hygiene's contribution is to help teachers become effective teachers, not part-time therapists."²

The traditional model of the teacher as an authoritarian figure dominating a classroom appears to be changing. Maslow (in Sanford, 1967) spoke of a "new breed of teacher", one who is able to interact with his students as human beings. He said it is the job of the teacher to help a person find out what is already in him rather than to mold him into a prearranged form.³ Tranel (1970) talked about a teacher responding to the feelings of a student as a necessary part of the learning process.⁴ Borton (1969) made it clear that such idiosyncratic factors as feelings, motives, fantasies, interpersonal relations and attitudes are of tremen-

¹ Buford Stefflre and Harold W. Grant, eds., Theories of Counseling (New York: McGraw-Hill, 1972), p. 24.

² C. H. Patterson, An Introduction to Counseling in the School (New York: Harper and Row, 1971), p. 53.

³ Abraham H. Maslow in N. Sanford, Where Colleges Fail: A Study of the Student as a Person (San Francisco: Jossey-Bass, 1967), p. 93.

⁴ Daniel D. Tranel, "Counseling Concepts Applied to the Process of Education" (unpublished Ph. D. dissertation, Loyola University, 1970).

dous importance for students' academic achievement as well as for their personal growth and mental health.¹

Menacher and Linton (1974) proposed a kind of teacher-counselor-friend role. The "educateur" has both a therapeutic and pedagogic function, achieving physical and emotional involvement with the child in various activities. Emphasis is placed on the relationship between teacher and student by Rogers (1969) and Moustakas (1966). Rogers presented evidence that teachers who provide a facilitative relationship produce self-initiated and creative responses in their students, and that they actually learn more when taught in an understanding classroom climate where the teacher is empathic and genuine, and prizes the students.² Moustakas emphasized the importance of a relationship which provides an atmosphere in which the student becomes autonomous in his development.³

Whether teachers possess the characteristics of counselors was studied by Little and Walker (1968). Working with small tutorial-type groups they sought to measure the degree of association between this relationship and academic success. They found a general factor of likableness to be significantly related to academic success, but did not confirm that therapeutic qualities related to therapy outcomes were also related to academic success in a tutor-student situation. They thought it is

¹T. Borton, "Teaching for Personal Growth: An Introduction to New Materials," Mental Hygiene, 53 (1969), 594-599.

²Carl R. Rogers, Freedom to Learn (Columbus, Ohio: Charles E. Merrill Publishing Company, 1969), pp. 116-119.

³C. E. Moustakas, The Authentic Teacher: Sensitivity and Awareness in the Classroom (Cambridge, Mass.: Howard A. Doyle Publishing Co., 1966), Chapter II, p. 17.

possible that for some students interpersonal qualities may be more important than for others.¹

While some studies have reported similarities between counselors and classroom teachers (Fiedler, 1950; Soper and Combs, 1962), Cottle, Lewis and Penney (1954) found differences, mostly in terms of interpersonal relationships and attitudes. Using the Tyler Q-Sort, along with the Carkhuff scale, Schultz and Wolf (1973) discovered that teachers seemed to feel quite unsure of their abilities in the area of promoting constructive interpersonal relationships with children. They suggested that teachers need experiential training, particularly in the relationship process dimension, to increase the probability of success in teaching affective education.²

On the other hand, students who may have had previous painful experiences with authority figures may recoil from personal contact with teachers. While some students are more oriented to feelings and personal relationships, others are mainly task oriented (Della Piana and Gage, 1955).³ Hattenschwiler (1969) showed that students from different backgrounds vary in their perceptions of the role of teacher, counselor, and parent, in regard to the expectations held for the student.⁴

¹Donald F. Little and Basil S. Walker, "Tutor-Pupil Relationship and Academic Progress," Personnel and Guidance Journal (December, 1958), 324-328.

²E. W. Schultz and Judith Wolf, "Teacher Behavior, Self-Concept and the Helping Process," Psychology in the School, 10 (1973), 75-78.

³G. M. Della Piana and N. L. Gage, "Pupils' Values and the Validity of the Minnesota Teacher Attitude Inventory," Journal of Educational Psychology, 46 (1955), 167-178.

⁴Dunstan L. Hattenschwiler, "Style of Role Enactment Expected of Parent, Teacher and Counselor," Personnel and Guidance Journal (June, 1969), 963-969.

Recognizing that the person of the ideal teacher-counselor may exist only rarely, Curran (1968) proposed a compromise: a team-teaching situation, in which one person might be primarily the class counselor and discussion leader, while the other would have the responsibility "for intellectual presentation, clarification, and the answering of knowledge-centered questions."¹

Criticisms of schools have prompted educators and psychologists to begin developing new approaches to the emotional and personal lives of students within the school. Borton (1969) pointed out that the emphasis in a classroom is toward normal children, which implies that the attention needed is within the scope of capability of a teacher:

They direct attention to normal children within a classroom setting and rely on materials that are within a teacher's competence to handle. They provide ways for the students to recognize, analyze, and express the feelings that are always present in the classroom. In some of the materials, the goal is simply to make these feelings legitimate and help the student understand them more fully....²

Psychological education, whether visualized as a separate course or discipline or as a set of skills used in facilitative communication and modeled by teachers, is recognized as legitimate subject matter for the classroom. Direct, personal involvement of teachers with their pupils is felt to promote better self-understanding in children. A number of writers (Jersild, 1955; Sanford, 1967; Rogers, 1969; Reichert, 1970; Lyon, 1971; Buchanan, 1971; Dinkmeyer, 1971) have pointed out the need for educators to demonstrate well developed human relationships, as well as the

¹Charles A. Curran, Counseling and Psychotherapy (New York: Sheed and Ward, 1968), p. 290.

²Borton, "Teaching for Personal Growth," p. 595.

need for the training of educators to help them be more effective as people in the classrooms. Theory-based training techniques for improving the quality of interpersonal relationships are finding acceptance and use.

II. Relationship- and Social-Learning Theory

Barrett-Lennard (1963) defined a helping relationship as "any relationship in which one person facilitates the personal development or growth of another, where he helps the other become more mature, adaptive, integrated, or open to his own experience."¹ Foulds (1969) showed that a direct relationship exists between the level of personal growth, authenticity, or self-actualization of the counselor and his ability to establish a therapeutic relationship with another person.²

Rogers (1962) defined the core conditions necessary for a helping or therapeutic relationship: empathy, positive regard, and genuineness, and stressed that in order for teachers to be able to help their students in personal growth and development it is necessary for them to possess these characteristics.³ Truax and Carkhuff (1964) found that the central core of facilitating conditions in efficacious therapeutic practice are the conditions that exist in all good interpersonal rela-

¹G. T. Barrett-Lennard, "Significant Aspects of a Helping Relationship," Mental Hygiene, 47 (1963), 223-227.

²Melvin L. Foulds, "Positive Mental Health and Facilitative Genuineness during Counseling," Personnel and Guidance Journal (April, 1969), 762-766.

³Carl R. Rogers, "The Interpersonal Relationship: The Core of Guidance," Harvard Educational Review, 32, No. 4 (1962), 416-429.

tionships. These characteristics are not at all unique to psychotherapy or counseling.¹ Instead, they are qualities of universal human experience that are present or absent in varying degrees in virtually all human relationships (Fiedler, 1950; Shoben, 1953; Bordin, 1959; Lewis and Wigel, 1964). The I-Thou relationship as described by Martin Buber (1937) contains the core conditions of a therapeutic relationship.

Studying the qualities inherent in the helping relationship versus those in friendship, Martin, Carkhuff and Berenson (1966) sought to compare levels of facilitative functioning between "best friends" and counselors. They found that the therapists provided significantly higher levels of empathy, positive regard, and genuineness.² Reisman and Yama-koski (1974) investigated communications that occur between friends, particularly whether the communications of a Rogerian therapist to his client are similar to the communication of one friend helping another to deal with personal problems. They concluded that many people have decided preferences among forms of communication and that the empathic form is not especially popular. They suggest that if therapists do seek to communicate as do friends, they could do so by being less empathic and more expository and varied in their forms of response.³

¹C. B. Truax and R. R. Carkhuff, "Significant Developments in Psychotherapy Research," in Progress in Clinical Psychology, Volume VI, ed. by A. Abt and B. F. Reiss (New York: Grune and Stratton, 1964), 124-155.

²J. C. Martin, R. R. Carkhuff, and B. G. Berenson, "Process Variables in Counseling and Psychotherapy: A Study of Counseling and Friendship," Journal of Counseling Psychology, 13 (1966), 356-359.

³John M. Reisman and Tom Yama-koski, "Psychotherapy and Friendship: An Analysis of the Communications of Friends," Journal of Counseling Psychology, 21, No. 4 (1974), 269-273.

Do lay persons and therapists perceive the therapeutic relationship similarly? Fiedler (1950) found that teachers and therapists tended to describe it in like terms.¹ His finding was supported by Soper and Combs (1962).

There is a growing body of data which suggests that the outcome of counseling is more closely related to the personal qualities of the counselor than to his technical background (Allen, 1961; Bergin, 1963; Truax and Carkhuff, 1963). Summing his research on the subject of facilitative characteristics in helping persons, Carkhuff (1969b) concluded that although teacher possession of empathy, respect and genuineness does make a difference in the lives of teachers and students, the majority of teachers tend to exhibit minimal levels of these characteristics.² As a concomitant to his research, he developed a system for training persons that can raise their measurable level of functioning with respect to these dimensions (1969a).³

Just as the relationship between therapist and client is important in therapy, so is the relationship between teacher and student a vital factor in learning. Indeed, core conditions of a good interpersonal relationship are necessary to facilitate growth. There is evidence that teachers and counselors both possess these characteristics in some degree, and that the skills called for can be learned. From the standpoint of

¹F. E. Fiedler, "The Concept of the Ideal Therapeutic Relationship," Journal of Consulting Psychology, 14 (1950), 239-245.

²Robert R. Carkhuff, Helping and Human Relations (Volume II: "Practice and Research") (New York: Holt, Rinehart and Winston, 1969), in toto.

³Ibid., (Volume I: "Selection and Training"), in toto.

psychotherapy, as practiced by Rogers and other therapists whose treatment focuses on mental processes rather than overt behavior, heavy emphasis is on the relationship between therapist and client. Rogers (1958) indicated that it is the manner of the counselor's being when in the presence of the client that fosters growth.¹ It is evident that part of the work of a teacher is to become proficient in helping skills, and to know ways to impart these skills to students. Psychological education can have an effect on growth in affective functioning, in the manner in which psychological growth can be achieved through therapy.

Eclecticism in psychological education results from the confluence (Brown, 1971) of practices based in both humanistic and behavioristic approaches to the goal of mental health.² In the decade of the 1950's behaviorally oriented psychologists suggested that counseling could be understood in terms of social behavior rather than as a unique human relationship. Counseling was presented as a teaching-learning situation and as an educational process. The major emphasis was placed on the outcomes of counseling, stated as specific changes in the observable actions of clients (Thoresen and Hosford, 1972).³ Instead of using the interview as the most effective method for all clients and all problems, the task was to find out what the concern of the individual client

¹C. R. Rogers, "The Characteristics of a Helping Relationship," Personnel and Guidance Journal, 37 (1958), 6-16.

²George I. Brown, Human Teaching for Human Learning (New York: Viking Press, 1971), in toto.

³Carl E. Thoresen and Ray E. Hosford, "Behavioral Approaches to Counseling," Behavior Modification in Education, the 72nd Yearbook of the National Society for the Study of Education, Part I (Chicago: University of Chicago Press, 1972), pp. 107-153.

was, and then the form and type of counseling should follow. Counseling was being conceptualized as a technology for behavior change, incorporating a variety of empirically based techniques suggested by theory and research in psychology.

Cause and effect, or S-R bonds, were seen to exist in Rogerian counseling. While relationship theorists rejected manipulation of clients by consciously directed behavioral techniques, an experiment by Truax (1966a) demonstrated how Rogers' client-centered responses in a counseling interview unconsciously shaped and influenced his patient's perceptions by way of selected reinforcement.¹ A study by Parloff et al (1960), which showed that clients tended to adopt their therapists' values as their own, also pointed to "significant differential reinforcement effects" in client-centered therapy.²

In a study of group counseling with mental patients, Truax (1968) found that the humanistic qualities of warmth, empathy, and genuineness appear to be used as rewards or reinforcements that change behavior. He also found that learning through modeling or imitation in the group is greater than the effects of direct learning in group therapy. Experiments by Bandura (1971) and others have demonstrated that the presentation of appropriate modeling experiences can be an affective coun-

¹C. B. Truax, "Reinforcement and Non-Reinforcement in Rogerian Psychotherapy," Journal of Abnormal Psychology, 71, No. 1 (1966), 1-9.

²M. B. Parloff, B. Iflund, and N. Goldstein, "Communication of 'Therapy Values' between Therapist and Schizophrenic Patients," Journal of Nervous and Mental Disease, 130 (1960), 193-199.

selling procedure in facilitating the performance of behaviors that seldom occur.¹

While the goal of behavior therapy appears to focus on specific concerns that are observable, and that of client-centered therapy on change of perceptions and attitudes, the function of the therapist in either case is that of catalyst for change. Shoben (in Mowrer, 1953) explained that counseling is learning more adjustive behavior, and equated growth as the term is used by Rogers to the client's acquisition of new modes of response.² Social learning theory has posited the model as reinforcer. Eysenck said that learning theory regards neurotic symptoms as simple learned habits: get rid of the symptom and you have eliminated the neurosis. He presented evidence (Eysenck, 1965) that behavior could be changed without attempting to modify the personality as a whole.³

As S-R theorists increasingly recognized the importance of internal processes in behavior change, an eclectic position emerged. Wrenn (1973) says, "There is much to suggest that behaviorism and phenomenology can learn from each other."⁴ Asbury and Winston (1974) point out that Krumboltz and Thoresen (1969) and Carkhuff (1969a and 1969b) "have

¹A. Bandura, "Psychotherapy Based upon Modeling," in Handbook of Psychotherapy and Behavior Change, ed. by A. Bergin and S. Garfield (New York: John Wiley and Sons, 1971), in toto.

²E. J. Shoben, "Some Observations on Psychotherapy and the Learning Process," in Psychotherapy: Theory and Research, ed. by O. H. Mowrer (New York: Ronald Press, 1953), pp. 52-79.

³H. J. Eysenck, Fact and Fiction in Psychology (England: Penguin Books, Ltd., 1965), Chapter IV, pp. 95-177.

⁴C. G. Wrenn, The World of the Contemporary Counselor (Boston: Houghton Mifflin, 1973), p. 236.

attempted to consummate a pragmatic marriage between the two."¹ Mayer and Cody (1968), drawing a parallel between behaviorism and humanism, showed some resemblances between Festinger's theory of cognitive dissonance and Rogers' description of incongruence, and suggested how these complementary notions could be applied in counseling practice for behavioral modification.² Darrell Smith (1974) applied the term "behavioral humanism" to the eclectic position which he felt was a logical demonstration of Maslow's 1969 statement that "we start where we are, supplementing our noble conceptions with behavioral principles and techniques appropriate for maximally helping...."³ Truax (1966b) holds that man is both a whole being and also a collection of habits and behaviors.⁴ Patterson (1969) accepts eclecticism as a helpful construct, pointing out that the behavioral humanist gives the client responsibility for the direction and pace of the counseling process, that while he may be very active, he is not manipulative, but is active in empathizing with and understanding the client and communicating that understanding.⁵

¹Frank R. Asbury and Roger B. Winston, Jr., "Reinforcing Self-Exploration and Problem Solving," The School Counselor, 21 (June, 1974), 204.

²G. Roy Mayer and John J. Cody, "Festinger's Theory of Cognitive Dissonance Applied to School Counseling," Personnel and Guidance Journal (November, 1968), 233-239.

³Darrell Smith, "Integrating Humanism and Behaviorism," Personnel and Guidance Journal, 52 (April, 1974), 518.

⁴Charles B. Truax, "Some Implications of Behavior Therapy for Psychotherapy," Journal of Counseling Psychology, 13, No. 2 (1966), 160-170.

⁵C. H. Patterson, "A Current View of Client-Centered or Relationship Therapy," The Counseling Psychologist, 1 (1969), 2-25.

Current models of affective education vary, but appear to base practice on a combination of behavioral and relationship theory. In the Carkhuff model of psychological education (Carkhuff, 1972), the helper is first trained until he reaches at least a minimal level of facilitative functioning on the Carkhuff scale, so he can respond to feelings and make interchangeable responses. Then the helper (teacher) trains his students, who transfer their learning to interaction with other students as they model their teacher's behavior.¹ Sprinthall's Human Resource Development Program has been introduced in high schools where teenage pupils learned to counsel others, to teach young children, to work in nursery school, to teach improvisational drama techniques. In the course of their involvement they changed in their level of psychological development. Specifically, they worked to promote the learning of listening skills and the developing of empathic responses through actual peer counseling experience (Sprinthall and Erickson, 1974).² Other affective education projects have been initiated and reported by Weinstein and Fantini (1970), Brown (1971), and Stanford (1972).

When a helping relationship has been established between teacher and pupil, the latter will tend to respond to the affectional rewards he receives from the teacher by patterning his behavior after the teacher's, for the teacher has now become a model. Bandura and Walters (1963) and others (Mowrer, 1950; Whiting and Child, 1953; and Sears et al, 1957)

¹Robert R. Carkhuff, The Art of Helping (Amherst, Mass.: Human Resource Development Press, 1972), in toto.

²Norman A. Sprinthall and Lois V. Erickson, "Learning Psychology by Doing Psychology: Guidance through the Curriculum," Personnel and Guidance Journal, 52, No. 6 (1974), 396-405.

have explained in behavioral terms why, if a student likes his teacher, he will accept him as a model. They say that affectional rewards increase the secondary reinforcing properties of the model, and thus predispose the imitator to pattern his behavior after the rewarding person. Stanford (1972), working with English classes in a Missouri high school, produced evidence of positive effect on students.¹ Williamson (1969), using a rating instrument to determine factors in teacher effectiveness, found a more harmonious relationship between effective teachers and their students.²

The effect of modeling has been demonstrated elsewhere. Heine (1950) showed that client-centered patients tend to produce client-centered terminology, theory and goals, and their interview content showed little or no overlap with that of patients seen in psychoanalysis who, in turn, tended to speak the language of psychoanalytic theory.³ Truax (1968) showed that even though a therapist may not intend to model certain behavior, he will attend to certain client behavior, thus reinforcing that behavior.⁴ The claim that counselors influence their clients is supported both by experimental studies on direct conditioning

¹Gene Stanford, "Psychological Education in the Classroom," Personnel and Guidance Journal, 50 (March, 1972), 585-592.

²J. A. Williamson, "Biographical Factors and Teacher Effectiveness," Journal of Experimental Education, 37 (Spring, 1969), 85-88.

³R. W. Heine, "An Investigation of the Relationship between Change in Personality from Psychotherapy as Reported by Patients and the Factors Seen by Patients as Producing Change" (unpublished Ph. D. dissertation, University of Chicago, 1950).

⁴Charles B. Truax, "Therapist Interpersonal Reinforcement of Client Self-Exploration and Therapeutic Outcome in Group Psychotherapy," Journal of Counseling Psychology, 15, No. 3 (1968), 225-231.

(Verplank, 1955)¹ and by clinical observations (Parloff, Iflun and Goldstein, 1960).² Imitation of a model, according to Bandura (1969) is governed largely by three sets of variables, including "observer characteristics, the reinforcement contingencies associated with matching behavior in the particular setting, and the attributes of the model."³

It appears from the foregoing that reinforcements or rewards are a part of the process of successful counseling, or the development of a friendly relationship in general, and imitation is an expected part of the process. The implication for the experiment under study is that if students view their teacher as a model, they will tend to imitate the teacher's behavior. Written behavior as well as verbal can be imitated.

III. Self-Disclosure and Mental Health

The quality of openness, the ability to express one's self spontaneously, without defenses, appears to Rogers (1961) to be among the characteristics of the fully functioning person. Openness, according to Rogers (1959),

signifies that every stimulus, whether originating within the organism or in the environment, is freely relayed through the nervous

¹W. S. Verplank, "The Control of the Content of Conversation: Reinforcement of Statement of Opinion," Journal of Abnormal Social Psychology, 51 (1955), 668-671, quoted in Rachel Ajzen, "Human Values and Counseling," Personnel and Guidance Journal, 52 (October, 1973), 77-89.

²Parloff, et al, "Communication of 'Therapy Values'," quoted in Ajzen, "Human Values", 77-89.

³A. Bandura, Principles of Behavior Modification (New York: Holt, Rinehart and Winston, 1969), p. 198.

system without being distorted or channeled off by any defensive mechanism.¹

An individual who is aware of what he is experiencing will have more information on which to base his decisions than he would if some portions were "closed off".

The quality of awareness is tied to openness in the literature. Jahoda (1958) pointed out the importance of a person's attitudes toward himself, his accessibility to this knowledge, his accuracy in self-description, and his sense of role identity.² Others have seemed to say that awareness means being "in touch", accepting one's self, having the ability to see the world without fear, accurately and realistically (Combs, Avila and Purkey, 1971).³

Both Rogers (1966) and Maslow (in Rogers, 1966) conceive of the individual as being self-actualizing, developing toward autonomy and away from heteronomy, or control by external forces.⁴ For full self-actualization, Rogers says the individual needs to experience his feelings fully, to be aware of himself and the world outside. If he is able

¹C. R. Rogers, "A Theory of Therapy, Personality and Interpersonal Relations, as Developed in the Client-Centered Framework," in Psychology: A Study of a Science (Volume III), ed. by S. Koch (New York: McGraw-Hill, 1959), p. 206.

²Marie Jahoda, Current Concepts of Positive Mental Health (New York: Basic Books, 1958), pp. 24-30.

³Arthur W. Combs, Donald L. Avila, and William W. Purkey, Helping Relationships: Basic Concepts for the Helping Professions (Boston: Allyn and Bacon, Inc., 1971), p. 154.

⁴C. R. Rogers, "A Theory of Therapy as Developed in the Client-Centered Framework," Chapter IV in Counseling and Psychotherapy: Classics on Theories and Issues, ed. by Ben N. Ard, Jr. (Science and Behavior Books, Inc., 1966), pp. 43-74.

to bring more of his experience to awareness (to symbolize his experience), he may become more congruent in the experience of the feeling.

The act of verbalizing one's experiences is what Jourard (1959) called self-disclosure.¹ Jourard distinguished the real self from the outward or role self and stated that self-disclosure is showing the real self (thinking, feeling, desires, fears, etc) to another. He stressed that healthy personalities are capable of self-disclosure, and that inability to disclose one's self is one sign of mental illness (Jourard, 1959). A number of studies support this claim (Carkhuff, 1969; Pederson and Higbee, 1969; Jones, 1972). Jourard's theory of the relationship between self-disclosure and maladjustment is congruent with the related ideas of Fromm (1955), Rogers (1961), and Mowrer (1961).

Rokeach (1960) contends that "openness" and "closedness" appear as significant aspects of personality; the open person is one in whom there is a relatively high degree of self-communication. The closed person is one in whom there is a greater degree of isolation among the various levels and/or varieties of his experience.² Snyder (1961) published a list of studies in which the client qualities of openness and self-disclosure were associated with good therapeutic prognosis.³

Truax (1971) said that self-disclosure is in itself a basic precondition for the development of genuineness. He showed that the depth

¹Sidney M. Jourard, "Self-Disclosure and Other-Cathexis," Journal of Abnormal and Social Psychology, 59 (1959), 428-431.

²Milton Rokeach, The Open and Closed Mind (New York: Basic Books, Inc., 1960), pp. 54-70.

³Wm. U. Snyder, The Psychotherapy Relationship (New York: Macmillan Co., 1961), pp. 124-125.

and extent of self-disclosure were positively related to the improvement of genuineness in the interpersonal relationship.¹

Verbalizing thoughts and feelings is generally thought to have a cathartic effect. Brammer and Shostrom (1960) define catharsis as "a release of feelings mainly through the medium of language." Speaking in favor of catharsis, they say it gives a feeling of relief from physiological tension, gives an awareness of relief from emotional pressure, and prevents acting out, i.e., catharsis uses symbolic means, and releases energy for more constructive acts. They acknowledge that effects of catharsis are not uniformly beneficial, that it may inhibit deeper exploration of problems, and that a ventor's neurotic pattern may be reinforced.² Some evidence from laboratory studies (Allyon and Haughton, 1964; Bandura, 1965; Berkowitz, 1969) indicates that traditional "talk" counseling, relying heavily on catharsis, often serves to maintain and even increase deviant behavior.

According to Williamson (1959), what one believes and what one does should be in line with one another. He said, "...the basic problem of human development is one of explicating value orientations and then organizing one's behavior as the more or less consistent 'expression' of those value-beliefs."³ It is the task of the therapist to help individuals express themselves so they will be able to see what they believe

¹Charles B. Truax, "Self-Disclosure, Genuineness and the Interpersonal Relationship," Counselor Education and Supervision, 10 (Summer, 1971), 1-4.

²Brammer and Shostrom, Therapeutic Psychology, p. 95.

³E. G. Williamson, "The Meaning of Communication with Counseling," Personnel and Guidance Journal, 38 (1959), 7.

and to evaluate what they want to change. Jourard (1967) says:

One of the most important tasks in personality therapy, and in the treatment of the so-called psychosomatic illnesses, is that of aiding the patient to recognize his own feelings, to "unrepress" them, to experience and express them fully.

In another context (Jourard, 1964), he says, "Real self-disclosure is both a symptom of personality health...and at the same time a means of ultimately achieving healthy personality."²

One of the most notable effects of self-disclosure, confirmed by a variety of experiments, is that self-disclosure by one individual prompts self-disclosure from another (Cozby, 1973).³ If school teachers and counselors want to promote self-disclosure in their students, presumably they should exhibit this characteristic in their interaction with students. The belief that therapist involvement is an important part of effective therapeutic exchange is supported by Kangas's (1972) study in which self-disclosure initiated either by the leader or by a group member increased self-disclosure by the other. Dickenson's (1965) study showed that the self-disclosure of the therapist bore direct and positive relationship to successful outcome of treatment.⁴

¹Sidney M. Jourard, To Be or Not to Be...Existential Psychological Perspectives on the Self (Gainesville, Florida: University of Florida Press, 1967), p. 113.

²Sidney M. Jourard, The Transparent Self (New York: Van Nostrand Reinhold Co., 1964), p. 24.

³P. C. Cozby, "Self-Disclosure: A Literature Review", Psychological Bulletin, 79 (1973), 73-91.

⁴W. A. Dickenson, "Therapist Self-Disclosure as a Variable in Psychotherapeutic Process and Outcome" (unpublished Ph. D. dissertation, University of Kentucky, 1965).

A therapist or teacher is generally perceived as a higher-status person. In research on conformity to the face-to-face example of a higher-status researcher, subjects are found to change in the direction of greater self-disclosure to him (Powell, 1967; Drag, 1968). Drag also demonstrated the development of trust in girls with whom the experimenter entered into dialogue in contrast to those whom the experimenter cross-examined.¹ Peggy Jaffe asked the question: "How far, and in what ways, will the subjects follow the example of self-disclosure set by the experimenter?"² Other studies relating to the powerful effect of the experimenter are reported by Matarazzo et al (1965) and Rosenthal (1967).

Small (1970) explored possible relationships between personal values and readiness to disclose one's self.³ Findings indicated that an open, self-disclosing interviewer appears to invite equivalent amounts of disclosure from subjects, irrespective of their personal value orientation. Jourard said that this lends confirmation to the findings reported by Drag and Jaffe, and also demonstrates once again an "experimenter effect" that is of considerable power (Rosenthal, 1967). Benedict (1970) set out to prove that people would trust high disclosers more, but on the contrary, found they trusted those whose levels of self-

¹Lee R. Drag, "Experimentar-Subject Interaction: A Situational Determination of Differential Levels of Self-Disclosure" (unpublished Master's thesis, University of Florida, 1968).

²Peggy E. Jaffe, "Self-Disclosure: An Example of Imitative Behavior" (unpublished Master's thesis, University of Florida, 1969).

³L. Small, "Personal Values and Self-Disclosure" (unpublished Master's thesis, University of Florida, 1970).

disclosure were like their own. This interaction, labeled the "dyadic effect", was defined by Jourard as "disclosure intake as a factor in disclosure output."¹ Jourard worked with Landsman (1960) and with Richman (1963) in further studies on the dyadic effect. Corroborating the effect, subjects tended to vary the amount of disclosure-output to colleagues with the degree of liking for those colleagues. Jourard suggested that disclosure is a reciprocal kind of behavior which proceeds to a level of intimacy agreeable to both parties and then stops. The "dyadic effect" is also called the "reciprocity norm" by Gouldner (1960).² The potency of this norm is evident from studies which find that reciprocity of self-disclosure occurs even when the discloser is not liked, as evidenced by Cozby (1972) and Derlega et al (1973).

Patients in a patient-therapist dyad will disclose themselves most fully when their therapist is likewise transparent and congruent (Jourard, 1964),³ that is, when he discloses his experience to the patient. This phenomenon has been noted also through studies by Hora (1960) and Mullen and Sanquiliano (1961). In pairs, or dyads, low self-disclosers tended to like the person who revealed low self-disclosure information. They saw the high self-discloser as eccentric and less well adjusted, and withdrew from him. Benedict (1970) interpreted this to mean that disclosure of high dependency-inducing information too early in a relationship violates social expectations and leads to a disruption of the

¹ Jourard, "Self-Disclosure and Other-Cathexis", 429.

² A. W. Gouldner, "The Norm of Reciprocity: A Preliminary Statement," American Sociological Review, 25 (1960), 161-178.

³ Jourard, The Transparent Self, p. 70.

developing relationship.¹ In a related experiment, Murphy and Strong (1972) found that timing of self-disclosure is critical.²

Jourard and Kormann (1968)³ and Heifitz (1967)⁴ agreed that a self-disclosing experimenter elicits more disclosure from his subjects than does a more formal and reserved experimenter. A study of interest to educators is Frey's (1967) where subjects who participated in an interview with the experimenter exhibiting mutual self-disclosure showed far superior performance on a pair-associate learning task than subjects who were not acquainted with the experimenter at all.⁵ Perhaps "knowing" him fosters trust, and this in turn encourages self-confidence. Positive student reactions to interviewer self-disclosures are reported (Schmidt and Strong, 1971; Strong and Dixon, 1971) where experimenters controlled students' interpersonal attraction to interviewers by having the interviewers reveal experiences and feelings similar or dissimilar to those expressed by the students. Similar results have been obtained by Giannandrea and Murphy (1973) and Bersheid and Walster (1969).

¹Barbara Ann Benedict, "The Effects of Self-Disclosure on the Development of Trust" (unpublished Ph. D. dissertation, Columbia University, 1970).

²Kevin C. Murphy and Stanley R. Strong, "Some Effects of Similarity Self-Disclosure," Journal of Counseling Psychology, 19, 2 (1972), 121-124.

³Sidney M. Jourard and L. Kormann, "Getting to Know the Experimenter and Its Effect on Psychological Test Performance," Journal of Humanistic Psychology, 6 (1968), 155-160.

⁴M. L. Heifitz, "Experimenter Effect upon the Openness of Response to the Rotter Incomplete Sentence Blank" (unpublished Senior Honors paper, University of Florida, 1967), described in Sidney M. Jourard, Self-Disclosure: An Experimental Analysis of the Transparent Self (New York: John Wiley & Sons, Inc., 1971), pp. 126-129.

⁵M. Frey, "The Effects of Self-Disclosure and Social Reinforcement on Performance in Paired-Associate Learning" (unpublished Senior Honors paper, University of Florida, 1967).

Worthy et al (1969) talked of the reception of self-disclosure as a social reward,¹ and there is evidence that people like most those others who disclose most to them (Jourard and Lasakow, 1958; Worthy et al, 1969). Nevertheless, Cozby (1972) suggested that there was a curvilinear relationship between self-disclosure and liking.² He proposed that there may be an optimal "distance". In coming too close, i.e., by disclosing too much or too soon, one may represent a threat to the other party's privacy and individuality.

Jane Rubin (1968) demonstrated that beliefs and assumptions about the experimenter are changed by the experimenter's self-disclosure,³ while Skafte (in Jourard, 1971) demonstrated that subjects have increased empathy for the experimenter as a result of the experimenter's self-disclosure.⁴ A study by Resnick (in Jourard, 1971) indicates that low disclosers will change their behavior when paired with more highly disclosing partners for mutual interviewing.⁵

In research with groups, Culbert (1968) found that greater leader self-disclosure resulted in members becoming freer to express themselves.⁶

¹M. Worthy, A. L. Gary, and G. M. Kahn, "Self-Disclosure as an Exchange Process," Journal of Personality and Social Psychology, 13 (1969), 59-63.

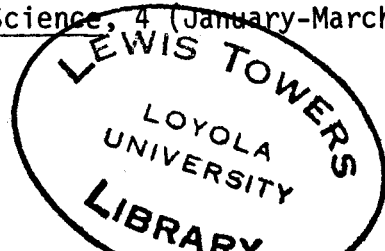
²P. C. Cozby, "Self-Disclosure, Reciprocity, and Liking," Sociometry, 35 (1972), 151-160.

³Jane E. Rubin, "Impression Change as a Function of Level of Self-Disclosure" (unpublished Master's thesis, University of Florida, 1968).

⁴Jourard, Self-Disclosure: An Experimental Analysis, p. 137.

⁵Ibid., pp. 151-156.

⁶Samuel A. Culbert, "Trainer Self-Disclosure and Member Growth in Two T-Groups," Journal of Applied Behavioral Science, 4 (January-March, 1963), 47-73.



A related experiment was performed by Graff (1970), with comparable results.

Schoeniger (1965) obtained results in individual counseling sessions which indicated that clients who work with a self-disclosing therapist manifest higher levels of "self-experiencing" during therapy than clients who work with a non-disclosing therapist.¹ Similarly, Allen (1961) found that counselor openness is related to counseling effectiveness.²

Contrary results have been obtained as well. The use versus non-use of self-experiences by a counselor in group sessions was tried by Branam (1967).³ The Jourard Self-Disclosure Questionnaire (JSDQ) was administered before and after counseling, and it was not found that there was more self-disclosure in the situation where the counselor used his own self-experiences, nor did the students perceive the counselor as more genuine in the experimental situation.

Rubin suggested that modeling behavior is responsible for much self-disclosure in the laboratory.⁴ The subject uses the behavior of the other as a guide to the correct type of behavior in the ambiguous laboratory setting. Rubin said that probably trust is an important ele-

¹D. Schoeniger, "Client Experiencing as a Function of Therapist Self-Disclosure and Pre-Therapy Training in Experiencing" (unpublished Ph. D. dissertation, University of Wisconsin, Madison, 1965).

²Thomas Allen, "Effectiveness of Counselor Trainees as a Function of Psychological Openness," Journal of Counseling Psychology, 14 (January, 1961), 35-39.

³J. M. Branam, "Client Reaction to Counselor's Use of Self-Experience," Personnel and Guidance Journal, 45 (1967), 568-672.

⁴Rubin, "Impression Change" (1968).

ment in reciprocity outside the laboratory, that is, the discloser has demonstrated his trust by divulging intimate information, making himself open and vulnerable. The recipient then reciprocates to indicate his trust is not misplaced.

In a review of the literature on self-disclosure, Cozby (1973) concludes that the JSDQ does not appear to predict actual disclosure to others, that it may be best interpreted as a measure of past history of self-disclosure.¹ He suggests that the direction chosen by a number of researchers who have undertaken correlations between personality trait measures and self-disclosure questionnaires, is not useful. Instead, he suggests that self-disclosure should be measured behaviorally and used as the dependent variable.

In summary, it appears that self-disclosure in a dyadic relationship is reciprocal, depending principally on certain factors related to the core conditions of good interpersonal relationships. Among the variables affecting the willingness to reveal one's self to another are: the perceived genuineness of the helper and the liking of the helper for the helpee, the establishment of trust, and an optimal level of intimacy and distance between the members of the dyad. These factors can be critical in the amount of self-disclosure elicited from a student by a self-disclosing teacher.

IV. Conditioning Self References

Self-disclosure, revealing one's self to another, is exhibited through verbalization of one's thoughts and feelings. When an individual

¹Cozby, "Literature Review", 73-91.

says, "I am worried that...", or "I feel confident that...", he is describing some inner state, specifically a state of affect. Self-references, such as I, me, myself, etc, when used contiguously with words of affect, symbolize the existence of an emotional state in the individual. Experiments in which persons are conditioned to verbalize feelings give some indication that through modeling and reinforcement procedures, the production of self-reference affect statements can be increased.

There appears to be agreement between client-centered and behaviorally oriented helpers that reinforcement effects can occur during the counseling process. The client-centered viewpoint sees these as a natural, unforced part of an ongoing relationship, and followers of learning theory, by contrast, tend to plan intervention to achieve specific effects. Thoresen (1973) says:

Specific verbal responses such as self-disclosing behavior can be defined, and planned learning situations can be used to increase such behaviors.¹

Conditioning of a client's responses in counseling appears to follow principles of both social learning theory and relationship theory. In a therapeutic relationship certain types of verbalizations are considered positive and helpful (Krasner, 1966), and are reinforced by the therapist either consciously or unconsciously.² The observer, or client, seeks cues to guide him in his behavior. These are given him in the

¹Carl E. Thoresen, "Behavioral Humanism," Behavior Modification in Education, The 72nd Yearbook of the National Society for the Study of Education, Part I (Chicago: University of Chicago Press, 1972), p. 414.

²L. Krasner, "Behavior Modification Research and the Role of the Therapist," in Methods of Research in Psychotherapy, ed. by Louis A. Gottschalk and Arthur H. Auerback (New York: Appleton-Century Crofts, 1966), pp. 292-311.

form of instructions, modeling, or reinforcement. Reviews of the studies on the conditioning of verbal behavior indicate that systematic application of conditioning principles can result in significant and efficient behavior changes (Salzinger, 1959; Strong, 1964; Krasner and Ullman, 1965; Greenspoon and Brownstein, 1968). A critical review of behavioral modification methods (Russell, 1974) suggests, however, that the power of behavioral control is limited.¹

In the area of verbal conditioning, specifically of self-affect references, Raimy (1948) postulated that in successful therapy, a client's view of himself (self-concept) changes from negative to positive, and the changes are reflected in his self-references.² His analysis of counseling interview typescripts showed that at the conclusion of counseling "the successful cases showed a vast predominance of self-approval; the unsuccessful cases showed a predominance of self-disapproval and ambivalence." Raimy's experiment was replicated and confirmed by Todd and Ewing (1961).

The self-reference affect response class has been the subject for a number of experiments: Salzinger and Pisoni (1960); Rogers (1960); Waskow (1962); Moos (1963); Merbaum (1963); Merbaum and Southwell (1965); Dicken and Fordham (1967); Kramer (1968); Pepyne (1968); Kennedy and Zimmer (1968); Ince (1968); Hoffnung (1969); Crowley (1970); Hekmat and Theiss (1971); Marlatt (1972); Barnabei (1974). Recent reviews in the

¹Elbert W. Russell, "The Power of Behavior Control: A Critique of Behavior Modification Methods," Journal of Clinical Psychology, 30 (April, 1974), 111-136.

²V. C. Raimy, "Self-Reference in Counseling Interviews," Journal of Consulting Psychology, 12 (1948), 153-163.

field of verbal conditioning include other studies (Williams, 1964; Krasner, 1965; Kanfer, 1968; Flanders, 1968; Marlatt, 1972).

Stimulated by the notion that a schizophrenic patient's ability to express affect is an important criterion for diagnosis and prognosis, Salzinger and Pisoni (1959) first examined the effect of reinforcement upon schizophrenics' output of affect responses in an interview. In 1960, working with "normals", they reinforced one group with "umhmm" or "good" for positive statements. They concluded that it was possible to (1) define a generalized response class before an interview, (2) identify it within the context of a continuous conversation, and (3) alter its frequency via contingent reinforcement.¹ The finding (Rogers and Dymond, 1954) that significant affective changes in interview content correspond with changes in behavior outside the interview,² led to conditioning experiments employing outside measures to test the generalization of effects. Rogers (1960) tested the hypothesis that frequency of self-reference statements can be changed by reinforcement, and that this reinforcement can alter the self-concept as measured by personality tests.³ In his study, subjects were asked to describe themselves in a series of short interviews. Positive self-references were reinforced for the experimental group, negative for the second group. Only the negative group

¹K. Salzinger and S. Pisoni, "Reinforcement of Verbal Affect Responses of Normal Subjects during the Interview," Journal of Abnormal and Social Psychology, 60 (1960), 127-130.

²C. R. Rogers and Rosalind F. Dymond, Psychotherapy and Personality Change (Chicago: University of Chicago Press, 1954), p. 345.

³J. M. Rogers, "Operant Conditioning in a Quasi-Therapy Setting," Journal of Abnormal and Social Psychology, 60 (1960), 247-252.

showed a conditioning effect, and no significant differences were found in the post-testing in which the Manifest Anxiety Scale and the Q-Sort Emotional Adjustment test were administered. Rogers concluded that the influence of minimal reinforcement is confined to the interview.

An attempt was made by Dicken and Fordham (1967) to see whether reinforcement of favorable self-references would bring about changes in behaviors outside the interview. In the experimental group effort was made to obtain positive responses:

For the E groups, prompts were used to elicit positive self-evaluations and positive affect. This was done to "shape" the response class for which reinforcement was to be provided, and sometimes took the form of attempting to change a negative line of communication by S to a positive one. Reflections used as reinforcers were aimed at the positive part of a mixed-affect communication.¹

Another group was minimally reinforced with "mm-hmm's" and reflections. Both groups changed, and in the outside measure, the California Personality Inventory, the E's showed the most improvement in reported personal functioning. However, Crowley (1970) was critical of the procedures employed.²

While early programmed interventions in the majority of verbal conditioning interview studies consisted mainly of simply reinforcing stimuli such as "um-hmm", "uh-huh", "I see", and "good", often along with non-verbal gestures, effects of more complex intervention were explored by

¹Charles Dicken and Michael Fordham, "Effects of Reinforcement of Self-References in Quasi-Therapeutic Interviews," Journal of Counseling Psychology, 14 (1967), 147.

²T. J. Crowley, "The Conditionality of Positive and Negative Self-Reference Emotional Affect Statements in a Counseling Type Interview" (unpublished Ph. D. dissertation, University of Massachusetts, 1970).

Waskow (1962)¹ and Merbaum (1963).² Merbaum and Southwell (1965) tested the effects of two different interventions to see if their subjects would discriminate between two kinds of reinforcement, echoic and paraphrastic, suggesting that if only the acknowledgment of a response were sufficient, then no difference between the two treatments would appear.³ Their results indicated that discriminative stimuli play a dominant role in verbal conditioning performance. They found that the paraphrase was significantly most effective in influencing the subjects' recall of affective words, and the echoic response was ineffective. In a related experiment, using similar reinforcing stimuli, Wilder (1966) investigated the effects of verbal modeling and verbal reinforcement on the frequency of self-referred affect statements (SRA).⁴ He concluded that the frequency of SRA varied as a function of the E's modeling SRA.

Five different forms of therapy-like intervention were employed by Hoffnung (1969), providing different levels of discriminating cue potency.⁵ These were, from least to most potent: um-hmm; echoic; in which

¹I. E. Waskow, "Reinforcement in a Therapy-Like Situation through Selective Responding to Feelings or Content," Journal of Consulting Psychology, 26 (1962), 11-19.

²M. Merbaum, "The Conditioning of Affective Self-Reference by Three Classes of Generalized Reinforcers," Journal of Personality, 31 (1963), 179-191.

³Michael Merbaum and Eugene N. Southwell, "Conditioning of Affective Self-References as a Function of the Discriminative Characteristics of Experimenter Intervention," Journal of Abnormal Psychology, 70 (1965), 180-187.

⁴S. N. Wilder, "The Effect of Verbal Modeling and Verbal Reinforcement on the Frequency of Emission of Self-Referent Affect Statements" (unpublished Ph.D. dissertation, Teachers College, Columbia University, 1966).

⁵R. J. Hoffnung, "Conditioning and Transfer of Affective Self-References in a Role-Played Counseling Interview," Journal of Consulting Clinical Psychology, 33 (1969), 527-531.

E repeated/reflected the content and mood of the subject's affective self-reference (ASR); paraphrasic, in which E restated/rephrased the subject's ASR response, substituting an appropriate synonym for each "feeling" word uttered, while retaining both the meaning and feeling of the subject's statement; and combined umhmm-paraphrasic. Hoffnung predicted conditioning effects from the last four interventions, and that transfer would occur as a direct function of the degree of conditioning in each intervention. Results show SRA's increased on all experimental conditions, and that all treatment conditions produced more transfer than the control condition, but the hypothesized relationships between discriminative cue potency of the interventions and performance were only partially supported.

The complicated net of variables affecting verbal conditioning led psychologists to be wary of the "power" of one person to condition another. Surmising that self-actualizing people might resist therapeutic interventions (Maslow, 1962), Hekmat and Theiss (1971) set out to find the relationship between self-actualization and verbal conditioning of affective self-disclosures during a "social conditioning" interview.¹ The Personal Orientation Inventory was administered to determine level of self-actualization among subjects for experimental grouping purposes. The high self-actualizing group had a significantly higher rate of self-disclosures prior to conditioning. The hypothesis that high self-actualizing individuals would show a significantly low degree of responsiveness to conditioning was sustained.

¹H. Hekmat and M. Theiss, "Self-Actualization and Modification of Affective Self-Disclosures during a Social Conditioning Interview," Journal of Counseling Psychology, 18 (March, 1971), 101-105.

Kanfer (1965) showed that imitative learning can occur on the basis of simple observation of the model's behavior.¹ Modeling procedures were used in connection with ambiguous interview settings in an experiment by Marlatt (1971).² Indications pointed to their usefulness as a technique in eliciting admission of personal problems. After being exposed to a taped model, S's in a high ambiguity group were told they could talk about anything they wished: "what you think and feel about certain topics". The low ambiguity group followed the same procedure, but S's were given cards on which the topics (which had been modeled) were listed. In line with the experimental hypothesis, the group expected to show the highest level of problem admission (exposure to model, high ambiguity task), did so. Also, all S's receiving the model engaged in significantly more problem-revelation periods than did the no-modeled controls.

The effects of pretraining of vicarious learning from a model could offer "a large step toward greater economy in interview therapy", according to Kanfer and Phillips (1970). They say:

...Marlatt and his associates also showed that the model may be presented in person or on tape, or the subject may simply read the model's responses in a written script, without apparent loss of effectiveness. They also found that ambiguity of instructions regarding their own interviews significantly affected the extent to which subjects imitated the model patient.³

¹F. H. Kanfer, "Vicarious Human Reinforcement: A Glimpse into the Black Box," in Research in Behavior Modification, ed. by L. Krasner and L. P. Ullmann (New York: Holt, Rinehart and Winston, 1965), pp. 244-268.

²G. Alan Marlatt, "Exposure to a Model and Task Ambiguity as Determinants of Verbal Behavior in an Interview," Journal of Consulting and Clinical Psychology, 36 (April, 1971), 268-276.

³Frederick H. Kanfer and Jeanne S. Phillips, Learning Foundations of Behavior Therapy (New York: John Wiley and Sons, Inc., 1970), p. 229.

The effectiveness of videotape observations of counseling sessions on the information-seeking behavior of observers was demonstrated by Krumboltz, Varenhorst and Thoresen (1967).¹

It has been suggested that modeling techniques are potentially powerful elicitors of verbal behavior (Marlatt et al., 1970).² Merbaum and Lukens (1968) reported success in the use of instructions with the ambiguous response class of affect words.³ Modeling procedures alone have been found to be effective in increasing the production of affective responses such as problem disclosure and emotional self-references (Myrick, 1969; Marlatt, 1971). Whalen (1969) reported that the combination of instructions and modeling was effective in changing self-disclosure, while either technique by itself was ineffective.⁴

In an examination of the relative effectiveness of instructions and modeling in eliciting descriptive and affective statements, Green and Marlatt (1972) used the ambiguous response class, affective self-statements, as a part of their experiment.⁵ While they found that in-

¹J. D. Krumboltz, B. B. Varenhorst, and C. E. Thoresen, "Non-Verbal Factors in the Effectiveness of Models in Counseling," Journal of Counseling Psychology, 14 (1967), 412-418.

²G. A. Marlatt, et al., "Effect of Exposure to a Model Receiving Evaluative Feedback upon Subsequent Behavior in an Interview," Journal of Consulting and Clinical Psychology, 34 (1970), 104-112.

³M. Merbaum and H. C. Lukens, "Effects of Instructions, Elicitations, and Reinforcement in the Manipulation of Affective Verbal Behavior," Journal of Abnormal Psychology, 73 (1968), 376-380.

⁴C. Whalen, "Effects of a Model and Instructions on Group Verbal Behaviors," Journal of Consulting and Clinical Psychology, 33 (1969), 509-521.

⁵A. H. Green and G. A. Marlatt, "Effects of Instructions and Modeling upon Affective and Descriptive Verbalization," Journal of Abnormal Psychology, 80 (1972), 189-196.

structions were a significant determinant for both groups, they felt that the significant effects obtained in the modeling condition were less specific, that the model had a general catalytic effect on duration of speech.

In summary, it has been shown that verbal self-disclosure can be elicited through planned intervention using conditioning principles. Reinforcement and modeling have been used experimentally to increase the production of self-affect references, as well as to change their emphasis. Individuals respond discriminately to different forms of stimuli, and so the question of which techniques are most effective in eliciting spoken SAR's may also be asked in regard to written experimentation where the object is to influence production of SAR's.

V. Personal Documents in Psychological Science

Gordon Allport (1964) defined a personal document as "any freely written or spoken record that intentionally or unintentionally yields information regarding the structure and dynamics of the author's life."¹ Among these records he includes (1) autobiographies, whether comprehensive or topical, (2) diaries, whether intimate or daily log-inventories, (3) letters, (4) open-ended questionnaires (but not standardized tests), (5) verbatim recordings, including interviews, confessions, narrative, (6) certain literary compositions. While the bulk of Allport's attention is directed toward the value of such materials in the objective study of personality, he also comments on a factor involved in studying

¹Gordon W. Allport, Pattern and Growth in Personality (New York: Holt, Rinehart and Winston, 1964), p. 108.

letters, or two-way communication. Here, he says, we must consider the personality of the recipient as well as that of the sender, the relationship existing between the two, and the topics of thought that comprise the exchange of letters. Dyadic relationships, said Allport, constitute a neglected chapter in social psychology.

During the 1940's the development of electrical recording devices enabled Rogers (1942)¹ and Curran (1945)² to tape and transcribe dialogue in counseling sessions. They noted changes in certain classes of verbalizations during the course of psychotherapy, and inferred relationships between quantities and kind of self-referents and content, and changes in internal states, such as insight and self-concept. Following their lead, Pancerz (1959)³ produced an instance of research related to the present study. Noting that Curran and Rogers selected negative and positive emotions in general as indices to the amount of growth that can take place in psychotherapy, she undertook to rate changes in affect in diaries kept by parents who brought their children to a counseling center. She compared the proportion of all positive statements and all negative statements in the initial segments of the successfully used diaries (S) with the proportions of such statements in the initial segments of the unsuccessfully used diaries (U). Comparison was made also of the final segments of the S and U groups.

¹Carl R. Rogers, Counseling and Psychotherapy (Boston: Houghton Mifflin, 1942), in toto.

²C. A. Curran, Personality Factors in Counseling (New York: Greene and Stratton, 1945), in toto.

³Helen K. Pancerz, "The Structured Diary as an Aid in Counseling Parents" (unpublished Ph. D. dissertation, Loyola University, 1959).

Annis (1967), in reviewing the psychological uses of the autobiography, pointed out that Leonard (1927), Clift (1943), and Brower (1947) used the device as a means of effecting a self-cure. He remarked that:

Hahn views the autobiography as having the status of a communication tool which is comparable to the interview and advocates that it can take the place of some of the face-to-face aspects of counseling.

While logs must more typically be defined as fact sheets, teachers and therapists have extended the meaning and scope of the technique. Riordan and Matheny (1972), in a study where "process logs" were kept, defined the process log as "a participant's written description of the interaction that occurred in a group counseling session, emphasizing the participant's feelings about himself, other members, and the interaction."² The authors remarked that because of the threatening nature of the situations that can occur in group counseling, spontaneous expression in the logs might be inhibited. However, they emphasized that written dialogue between student and counselor can provide support through feedback written clearly and carefully. These group leaders responded to log entries, and returned the logs as quickly as possible, reasoning that students tend to worry about personal things they said, until they get the log back.

Other accounts of the use of teacher-student diaries are provided by Lewis (1960), Edmund (1963), Alterman (1965), Lifton (1966), and

¹Arthur P. Annis, "The Autobiography: Its Uses and Value in Professional Psychology," Journal of Counseling Psychology, 14, No. 1 (1967), 13.

²R. J. Riordan and K. B. Matheny, "Dear Diary: Logs in Group Counseling," Personnel and Guidance Journal, 50 (January, 1972), 379.

Sainty (1972). Carroll (1970) reported that she participated in a course where process logs were used. Her entries were written in poetic form, as this best represented her feelings.¹

A high school counselor (Crabbs, 1973) described the use he made of letters in ongoing counseling over a 10-week period with a girl who found verbal expression very painful. He said of counseling-by-letter:

Not only did it provide much needed feedback on our developing relationship, but it encouraged Susan to bring to the surface feelings which might otherwise have gone unnoticed.²

Crabbs stressed the necessity for keeping the written messages confidential.

Two-way logs for communication purposes were used by a fourth-grade teacher (Shepherd, 1968) who noted that:

...communication, in the broad sense, should not be constantly threatened with evaluation, or restricted to a given topic....It is a sharing of ideas and emotions for which we are searching.³

Shepherd provided empathic or reflective responses. He presented as his rationale for the use of the two-way log:

...it establishes a vehicle for building rapport between pupil and teacher; it provides privacy for private ideas; it allows a change of pace from verbal sharing; it opens an avenue of communication for shy, non-talkers; it provides a reasonable time for teacher listening and reaction to pupil ideas; it creates a healthy atmosphere of human wonder and anticipation; and it adds a personal touch to an increasingly mechanical and impersonal society.⁴

¹M. R. Carroll, "Silence is the Heart's Size: Self-Examination through Group Process," Personnel and Guidance Journal, 48, No. 7 (1970), 546-551.

²Michael Crabbs, "Someone to Tell My Troubles to--," The School Counselor, 20 (May, 1973), 391.

³T. R. Shepherd, "Logs for Communication," Elementary English, 45 (December, 1968), 1080.

⁴Ibid., 1080.

Sprinthall and Erickson (1974) used student journals as a component of the curriculum for a tenth-grade trial class called "Psychological Growth for Women". They described the use and value of the journals as follows:

Throughout the quarter the female students kept journals for reflecting on class readings and assigned field experiences as well as for nonclass observations and experiences. The journals were collected weekly and used as ongoing communication and assessment between the individual student and the team teachers. Journal themes expressing awareness of feelings, use of empathy, understanding of psychological causes of behavior, and perception of choices were reinforced and encouraged by the teachers, and all student journals showed some gain in these areas over the quarter. Also, the journals revealed an increasing level of complexity in the students' understanding of the literary selections.¹

The authors seemed to infer that by reinforcing student verbalization of feelings, these increased.

A psychiatric social worker (Zentner, 1967) described how he sustained the casework process through letters to relatives of patients at the Menninger Clinic. He said that empathy must be communicated along with the information, e.g., "...a caseworker must maintain the same sensitivity toward a client in writing a letter that he would in an interview."² In describing the nature of the process of counseling by letter he says: "In effect, the letter becomes a bit of process, frozen in time because of its tangible nature, but in every other way it reflects the evolution of the client-worker relationship."³ It appeared to Zentner

¹ Sprinthall and Erickson, "Learning Psychology," 403.

² Ervin B. Zentner, "The Use of Letters to Sustain the Casework Process," Social Casework, 48 (March, 1967), 135.

³ Ibid., 135.

that the process of counseling by letter was very similar to verbal, face-to-face counseling.

The use of letters in casework is not new. Sigmund Freud maintained correspondence with the father of a five-year-old boy whom he treated (1959).¹ Burnell and Motelet (1973) described the case of a patient who moved from their locality, and with whom they kept in correspondence until she was able to accept the referral to another therapist. They emphasize the loss of spontaneity occasioned by "distance therapy", by the absence of all nonverbal cues, and the tendency to be more elaborate and cautious in using written words. However, they also cite certain advantages. Written therapy is helpful, they say, where office visits are impossible, where a patient has some unusual affinity for the written word, and where the patient has a serious handicap such as deafness. Speaking from their philosophical orientation, they remark that "all phenomena of transference, counter-transference, and resistance occur with this approach", and warn that it should be considered with the same degree of care as any other intervention in psychotherapy.²

A deaf therapist carried on his practice by having his patients communicate with him through writing (Farber, 1953). He noted that after the second or third interview patients readily accepted the fact that written communication was in fact communication, and they were seemingly

¹Sigmund Freud, "Analysis of a Phobia in a 5-Year Old Boy," Collected Papers, Volume 3 (New York: Basic Books, Inc., 1959).

²George M. Burnell and Kathleen P. Motelet, "Correspondence Therapy," Archives of General Psychiatry, 28 (May, 1973), 728-731.

unaware that any other method might exist. Farber observed the patient's body movements carefully, and took his response cues from this source as well as from the written response. He emphasized that the striking fact about written communication as compared to spoken communication is not its difference but its sameness. He said that those with a visual memory can more easily remember what is read than what is spoken. Farber found an additional advantage in the sense of participation which writing provides. He said that it is words themselves which can develop thoughts, and that the words in this context create a heightened sense of closeness between the client and patient.¹

Laffel (1969) stressed that it is the task of the helper to evoke words, whether spoken or written, for what becomes conscious is what the individual has words for. He said:

When a word is attached to an experience, there is an increase in cognitive and referential precision which may, in some instances, amount to becoming "aware" of what was previously only vague and undefined. Language thus raises to the level of consciousness inner processes otherwise out of, or only dimly in, awareness.... Once the tokens of language become selectively related to bodily states and experiences, language itself becomes a means of evoking such states and of being conscious of them.²

The calling of feelings into consciousness, or awareness, means labeling them with words that represent, or symbolize these states or feelings.

In 1965 a group of psychotherapists organized a symposium at an annual convention of the American Psychological Association. They called

¹J. Farber, "Written Communication in Psychotherapy," Psychiatry, 16 (1953), 365-374.

²Julius Laffel, "Contextual Similarities as a Basis for Inference," in George Gerbner et al., Analysis of Communication Content (New York: John Wiley and Sons, Inc., 1969), p. 161.

their group effort, "The Use of Written Communication in Counseling", and it is a rare instance of acknowledgment of the value and use of written communication in psychotherapy. Presentors included Arthur Burton, Albert Ellis, and Molly Harrower. Victor Raimy summarized the papers. In his preface to the small volume, Pearson recalled accounts of the Japanese Morita system, a "face saving" utilization of diaries by hospitalized patients. Morita, a Japanese psychiatrist, described the therapeutic value of methodical diary-keeping, with the diaries being collected daily, comments and reactions written in by the therapist assigned to the diarist, and return of the diaries the following day for meditation and further logging. Pearson also mentioned a study carried on at the Menninger Clinic which demonstrated the tentative value of a short term of daily "directed writing", or log of daily activities for psychotic persons.¹

Each of the contributors pointed out that the prevailing view that psychotherapy could be construed only as spoken communication between client and therapist was narrow, indeed. Burton noted that American psychotherapists have been much less receptive than Europeans to the use of painting, plastic materials, and "written productions"² in psychotherapy. He said that intervals between therapeutic sessions have a definite structure, when "the unconscious smooths its torn edges and the

¹Leonard Pearson, ed., The Use of Written Communications in Psychotherapy (Springfield, Illinois: Charles C. Thomas, Publ., 1965), in toto.

²Arthur Burton, "The Use of Written Productions in Psychotherapy," in The Use of Written Communications, ed. by Pearson, p. 4.

ego is busily at work."¹ He sees the integrative process being facilitated in some clients who believe that "things fit more rationally, logically and properly by writing them."²

Harrower, who in 1940 developed the Group Rorschach in which responses to the ink blots are written, reported she had considerable successful experience with two-way written documents, including one case which she treated over a four-year period and during which time over 200 notebooks were used. She said:

The notebooks contain approximately twelve pages for each of the participants to write on, and with a conservative estimate of twenty lines, with six or seven words to a line, it runs into a sizable production. Nearly two-thirds of a million words by both therapist and patient.³

Ellis described his use of varying techniques including diaries, journals, and correspondence primarily for diagnostic purposes. He suggested that the use of these methods be employed only where the therapist already knew the patient.

Raimy noted that the other three therapists participating in the symposium seemed to follow the same principles and conceptions as they did in typical office procedure. He saw some difficulty with written communication where conditioning of certain responses was an objective:

The greatest difficulties where time is a consideration, might be expected theoretically in those therapies which assume that certain feelings of the patient must be positively or negatively reinforced, or in the more recent operant conditioning techniques in which the

¹Ibid., p. 12

²Ibid., p. 12.

³Molly Harrower, "Therapeutic Communication by Letter-Notebook and Recorded Transcriptions," Ibid., p. 38.

shaping responses by the therapist must occur in a brief interval after the emitted response.¹

Raimy felt that the actual presence of a therapist might not always be necessary for an effective relationship, that a client could "conjure up" a mental picture of the therapist:

...I know of no reason to believe that people cannot express their feelings as readily and fully while writing as they can when looking someone in the eye. If you require that the patient's feelings must be accepted when expressed, there is again no reason why this cannot be accomplished....²

Nevertheless, Raimy took the position that relationship and the expression of feeling are both likely to be reduced in the exchange of letters or other forms of written material. He assumed a cognitive position toward the production in writing of self-affect references, in that he regarded emotions or feelings in therapy "simply as additional information which a person has about himself."³

Peck (1957) used written self-reports as an adjunct to conventional psychotherapy. The purpose of Peck's experiment was specified as awareness and understanding of one's behavior, and personal adjustment. Each of six clients was asked to systematically observe his own behavior, and record it. Records were turned over to the experimenter periodically for review. They were returned with written comments, usually of a non-evaluative nature. Self evaluation followed after termination of re-

¹Victor Raimy, "The Use of Written Communication in Psychotherapy: A Critique," Ibid., p. 64.

²Ibid., p. 59.

³Ibid., p. 62.

coding, along with a written interpretative statement developed by Peck.¹

Recently self-control therapy procedures (Kanfer and Phillips, 1970) have been implemented by the use of self-reports (Simpkins, 1971). In a study by Epstein and Peterson (1973), three clients kept especially designed booklets, in which they recorded their behavior while under therapy. The authors feel self-monitoring in writing is important:

...in a facilitation of self-recording a behavior, in providing reinforcement in the form of feedback through successfully carrying out the program, and seeing in the behavior graphs that the problem behaviors are being controlled.²

The question of whether a researcher might obtain different results with written material in contrast to spoken was explored by Gottschalk and his associates (1969). Ten-minute written verbal samples were obtained from a group of disturbed psychiatric outpatients before their admission to a brief psychotherapy outpatient clinic in an investigation designed to predict and evaluate outcome of treatment. These ten-minute written samples and five-minute verbal samples were found to correlate in the same directions with post-treatment measures. Gottschalk had conjectured that affect scores might be reduced when derived from written as compared to spoken verbal samples. His data led him to conclude that this does not seem to be so. Gottschalk had also felt that the generalizability of written verbal samples over scores and occasions might be

¹Bernard Peck, "Effect of Self-Observation upon Self-Awareness: An Exploratory Study" (unpublished Ed. D. dissertation, University of Maryland, 1957).

²Leonard H. Epstein and Gerald L. Peterson, "The Control of Undesired Behavior by Self-Imposed Contingencies," Behavior Therapy, 4 (1973), 92.

less than the spoken verbal samples if similar time units were used for language expression. This is because fewer words are written than spoken in a given time unit. Consequently, he increased the written time interval to ten minutes. He cautioned, however, about indiscriminately equating scores obtained with different language forms.¹

Studies on the quantitative differentiation of parts of speech in written and verbal form were reported by Fairbanks (1944)² and Mann (1944),³ using a comparison of samples from freshman students and schizophrenic patients. These word count studies revealed several differences in the relative frequency of usage of parts of speech in the spoken and written language of the two groups. For instance, the largest amount of increase (over time) in spoken over written language was 72.9 per cent in the pronouns for the patients and 27.7 per cent increase in verbs for the freshmen. This shows that there may be certain qualitative differences between the two means of expression which must be considered when trying to equate forms.

Butler and Hansen (1973) report a study in which the equivalence of written and oral modes for assessing levels of facilitative functioning were examined for correlational relationships and equalities of means

¹Louis A. Gottschalk, Carolyn N. Winget, and Goldine C. Gleser, Manual of Instructions for Using the Gottschalk-Gleser Content Analysis Scales: Anxiety, Hostility, and Social Alienation-Personal Disorganization (Berkeley: University of California Press, 1969), pp. 256-259.

²Helen Fairbanks, "The Quantitative Differentiation of Samples of Spoken Language," in Studies in Language Behavior, ed. by John F. Dashiell, Psychological Monographs 56, No. 2 (1944), 41-74.

³Mary Bachman Mann, "The Quantitative Differentiation of Samples of Written Language," Ibid., 75.

and variances. The experiment involved training counselors in facilitative techniques, and measuring their facilitative levels before and after training, by written and oral means. They found that there is a lack of equivalence between written and oral modes of responding. They report:

This discrepancy means that it is inappropriate to estimate individuals' probable level of functioning in a counseling interview from their written responses to client statements.¹

It appears that while written communication does not match the spoken form in quality or total effect, nevertheless, the same interpersonal dynamics can occur in a sustained written interchange, suggesting that, in fact, a genuine helping relationship can be established through writing. There is the disadvantage of not having verbal cues to give more complete feedback and perhaps there is some lack of spontaneity. In some instances, e.g., where distance separates the participants, or where deafness is a factor, counseling in writing may be the most logical means for helping. The most common use of written counseling is adjunctive to the conventional person-to-person form. It provides a way to make the counseling experience more complete.

VI. Content Analysis of Personal Documents

Content analysis, said Holsti (1969) is "any technique for making inferences by objectively and systematically identifying specified characteristics of messages."² Its use in research on personal documents is

¹Edward R. Butler and James C. Hansen, "Facilitative Training, Acquisition, Retention, and Modes of Treatment," Journal of Counseling Psychology, 20, No. 1 (1973), 65.

²Ole R. Holsti, Content Analysis for the Social Sciences and Humanities (The Philippines: Addison-Wesley Pub. Co., 1969), p. 14.

chronicled by Allport (1942), Auld and Murray (1955), Barcus (1959), and Marsden (1965).

While personal documents provide a rich source of data for studying human characteristics, they were, until the advent of computers, a high-cost source, as Annis (1967) said, "as soon as one attempts to go beyond the general impression level and tries to operationalize the information therein."² This difficulty is expressed elsewhere in the literature on content analysis (Berelson, 1952; Kerlinger, 1964; Holsti, 1969).

In order to derive data from personal documents, the content must be coded, that is, it must be systematically transformed into units which permit precise description of the content characteristics (Holsti, 1969). Coding involves the selection of categories, the unit of content to be classified, and the system of enumeration to be used. The choice of category reflects the research problem. The unit of content may be a single word, a phrase, a theme, a characteristic grammatical element such as a clause, or it may be the entire item itself. The unit chosen must meet the requirement of the research problem as it may affect the results of the analysis. When inferences are being sought, they may be based on co-occurrences of content attributed within the same unit.

The use of the computer in content analysis is a recent development, and as Stone (1966) pointed out, computers can perform the necessary coding tasks with significantly higher reliability than human

¹Annis, "The Autobiography," 15.

judges.¹ The computer is especially useful when the unit of analysis is the word or symbol, and inferences are to be based on the frequency with which they appear. An example of this is contingency analysis, when self-references are used in a sentence or clause with words of positive or negative affect.

The vast difference in human effort involved in content analysis by hand and by machine is illustrated in analyses of letters written by Jenny Masterson. Stone reports that two analyses, those of Baldwin (1942) and Allport (1965), were done manually, and the third was performed by Paige (1964) using a computer. While Baldwin reported that his personal structure analysis required between 100 and 150 hours of work by trained raters, the computer performed the work, plus more sophisticated examination of the data, in just 32 minutes.²

Manual coding involves subjective judgment on the part of raters, creating a problem of reliability. Budd et al (1967) viewed the problem of reliability as a communication problem, i.e., how well could other researchers recognize the referent from the investigator's descriptions or coding instructions? To insure construct validity (to know whether the research procedures are measuring the variables or attributes we want to measure), Budd suggested that the hypothesis be tested empirically.

¹Philip J. Stone et al, The General Inquirer: A Computer Approach to Content Analysis in the Behavioral Sciences (Cambridge, Mass.: The M.I.T. Press, 1966), in toto.

²Jeffery M. Paige, "Letters from Jenny: An Approach to the Clinical Analysis of Personality Structure by Computer," Chapter XII in Stone et al, The General Inquirer, pp. 431-451.

Another problem with analysis of written or verbal communication is to show that there is "an isomorphic relation between behavioral states and lexical content" (Mahl, in Pool, 1959).¹ Mahl pointed out the scarcity of information about underlying motives in manifest content. There is a risk, he says, in "reading between the lines", as private messages are not evident. Most of the objective studies performed to infer motivation, emotion, and attitudinal states in speakers or writers, in which content analysis is used, assume that behavioral states in a speaker (or writer) are necessarily directly represented in his words: if he says he is frightened, the implicit assumption is that the statement defines his state of being.

A further question lies in whether the analyst is concerned with the relationship between symbols (linguistics) or with psychological meanings (semantics). What people say or write has private meaning. Therefore, although the symbols (words) or different subjects may be counted, the meaning of the words, and the behavioral states represented, are described only generally, not specifically.

Stone et al (1966) investigated computer-aided content analysis as a research technique, and produced the General Inquirer system, a set of procedures developed to process "natural text".² Zimmer and Cowles (1972) demonstrated the use of Fortran to analyze therapeutic interviews,³ while

¹George F. Mahl, "Exploring Emotional States by Content Analysis," in Trends in Content Analysis, ed. by Ithiel de Sola Pool (Urbana, Illinois: University of Illinois Press, 1959), p. 90.

²Stone et al, The General Inquirer, in toto.

³J. M. Zimmer and K. H. Cowles, "Content Analysis using Fortran: Applied to Interviews Conducted by C. Rogers, F. Perls, and A. Ellis," Journal of Counseling Psychology, 19 (March, 1972), 161-166.

Pepyne et al (1973), building on previous work (Zimmer and Park, 1967; Crowley, 1970), developed a system of computer programs called the Discourse Analysis System, carrying the analysis of counseling interviews further.¹

The personal documents available for this study are analyzed by computer, using a modification of the Zimmer and Cowles CONTENT ANALYSIS program. Since the purpose of the study is to see whether self-affect references increase under conditions of reinforcement and modeling, the category selected is the self-affect reference (SAR), which consists in the co-occurrence of certain pronouns and specific emotional words in a sentence. The words selected are contained in the dictionary prepared for the program as modified. Enumeration of the units by computer eliminates the problem of reliability. Construct validity is tested by an outside measure, the Jourard Self-Disclosure Questionnaire.

VII. Summary

In Chapter II, research studies were cited which demonstrate that modeling and reinforcement are aspects of a facilitating relationship, and that they can be applied selectively to verbal behavior to increase self-affect references. The ability to reveal the self to another is considered to be one of the components of mental health. Teachers, in carrying out the goals of the school in the affective domain, can model self-disclosure to help students.

¹Edward W. Pepyne et al, "Automated Analysis of Counselor Style and Effects," (Research report, University of Hartford, June, 1973). (Mimeographed.)

The use of personal documents in psychological science was discussed, with particular regard to two-way written communication. Reports were presented of studies in which therapist and patient, counselor and client, and teacher and student used writing to communicate with each other. Some studies suggested that it is possible to carry on approximately the same quality of communication in writing as orally.

The literature on content analysis points ways to analyze changes in verbal responses, and the relative merits of manual versus automated content analysis of written materials was investigated.

CHAPTER III

METHODS AND PROCEDURES

I. The Sample

The study was conducted at Elmhurst College, a small (1450 students), private liberal arts institution located in Elmhurst, Illinois, a residential suburb of Chicago, Illinois, during Fall semester, 1974. Because of its size and character (Elmhurst College is church-related) students expect personal attention from the teaching staff. Thus, the effort of a teacher to establish written communication with students, or want to learn more about students through reading and responding to their personal messages, is considered a legitimate function of the educational process.

Forty-two students, divided evenly between two sections of a course titled Introduction to Education, served as subjects. No effort was made to channel them into one group or the other at registration time; they selected sections offered at times most convenient to themselves. The names of the team-teachers who taught the course appeared on both sign-up sheets. In the class which was designated experimental group status (the E-group), the ages of twenty of the students ranged from 17 to 21, with one older student who was 26 years of age. In the other class, designated control group status (the C-group), the ages of twenty of the students ranged from 18 to 21, with one older student (age not given). Each group consisted of sixteen women and five men. There were two black students in the E-group, three in the C-group. Since the course meets a

general college requirement, only about half of the members of each group will eventually obtain teaching certification. The rest tend toward careers in business and industry, or in homemaking.

II. The Experimenter

The classes were taught by the same team, a man and a woman, both of whom regularly taught the course. The male member of the team lectured and served as information consultant while the female teacher planned the lessons and was responsible for arranging group activities. It was the latter who performed the experiment. Since the female teacher had assigned C-books in her sections for 11 consecutive semesters previously, it was natural for her to continue, in this experimental situation, to request that students write in C-books as a regular course requirement. This perhaps tended to diminish any "experimenter effect".

III. Procedure

Classes met for 210 minutes each week, one group on a Monday-Wednesday-Friday (MWF) schedule, the other group on Tuesday and Thursday (TTh). The MWF class was designated the experimental (E) group, the TTh class the control (C) group before the classes met and before there was any knowledge about the make-up of the class. The fact that the two groups were to be compared, or were treated differently, was never discussed in class, nor was the question raised.

At the end of the first week of classes, each person was given a C-book (communications book) with instructions for use pasted on the inside front cover. Copies of the instructions are included in the Appendix on pages 126-127. The notebook selected contained 60 lined pages with 1-inch

margins. Students were instructed to date entries in the margin, and to use only one side of the page, leaving the opposite side for instructor replies. The directions were read to the students. Questions from both groups were answered with the statement, "Read the directions carefully."

Students took their C-books home and made entries in them as they wished. At two-week intervals, five time periods in all, C-books were picked up and read by the instructor. She typed her responses to the experimental group's entries for easier reading. She made paraphrasic responses, expressing in this mode her understanding of the meaning and attitudinal feeling the student was trying to convey. In addition to providing accepting, non-judgmental reinforcement through paraphrasic responses, the instructor modeled self-disclosure in one or two instances during each time period. Modeling consisted in relating a personal incident, feeling, or observation which contained emotional content, and which was related to the concern or expression of the student.¹

The number of instructor entries varied with the student entries. As a rule of thumb, where the length of an individual entry for a given time period was brief, and this was the only entry for that time period, care was taken to reflect feeling and to provide one model. Normally there were from two to four dated student entries during any one time period. These varied in length from a brief sentence to many pages. While each dated entry received at least one reinforcement response, seldom were more than two models provided during one time period regardless of the length or number of the student's entries.

¹For examples of modeling and reinforcement responses, see Chapter I of this Dissertation, Part IV, pp. 6-9.

The instructor's typed responses were pasted in the C-book opposite the student's dated entries, so the student could see his statements and the instructor's responses as related material. Thus, the form corresponded somewhat to that of dialogue, or of interview script. The C-books handed to the instructor at the end of each of the first four time periods were returned with instructor responses at the next class meeting, to provide continuity, and time was allowed at the beginning of the class period for each student to read the teacher response. After the fifth time period the C-books were not returned; they were processed for analysis, and then returned only to students who requested them.

Left to write what they pleased, and when they pleased, students discussed personal concerns and their reactions to events. Frequently they described their backgrounds or current experiences. No attention was called to correct form for grammar or spelling. Two students used the poetic mode throughout the five time periods. Particular effort was made to maintain the relationship between student and teacher on the basis of written communication, and students were discouraged from talking with the experimenter outside of class. They were told that they were welcome to discuss anything they wished with the male member of the team.

The control group followed the same schedule as the experimental group. However, instead of writing responses to student entries, the instructor made only one of two simple statements at the end of each entry time period. These were: "I have read your entries, Kathy (Tom, etc)", or, "I have seen your comments". These were followed by the instructor's initials and the date.

Analysis of the data from the C-books was performed by computer, using as prime model a program developed by Zimmer and Cowles (1972) called Content Analysis, in which they analyzed three therapeutic interviews using FORTRAN to process natural language. Mr. Robert Reed, director of the computer center at Elmhurst College, developed Content Analysis II to answer the question posed by this experiment.

C-book entries were edited only to insure that sentences written by students were discrete, that is, that they began with a capital letter and ended with a period. All entries from Time I, the first two weeks' entries, and Time V, the last two weeks' entries, were reproduced on data cards, and a printout was run in order to select affect words for the dictionary easily. The dictionary which was used in the computer identification of SAR sentences is made up of the total number of different words of affect identified in all of the E-group and C-group entries in C-books from Time I and Time V. Two categories, positive and negative words of affect, were listed. The eight personal pronouns were those used by Zimmer and Cowles. The dictionary is in the Appendix, pages 127-128.

Sentences identified by Content Analysis II as SAR-positive are those which contain one or more of the pronouns in the dictionary, plus one or more positive words of affect. Similarly, SAR-negatives contain at least one of the pronouns plus one or more negative words of affect. SAR-positive/negatives are ambiguous sentences, and have one or more of the selected pronouns plus a word or words of both positive and negative affect. These SAR sentences, which contain co-occurrences of selected pronouns and words of affect, are the dependent variables in the experi-

ment. In effect, self-disclosure is defined behaviorally in this manner.¹

The C-book entries were content-analyzed to provide total number of sentences, SAR-positives, SAR-negatives, and SAR-positive/negatives, for each student in both the experimental and the control groups, for Time I and Time V. It was expected that the E-group, which received written modeling and reinforcement in C-books, would respond with more written self-affect references than the C-group, which received no modeling and reinforcement. This proposition was stated in the form of the following null hypothesis:

Null Hypothesis I. There is no difference between groups in the equality of proportions of self-affect-references to the number of sentences in Time I and Time V.

Statistical measures were selected to test the null hypothesis. First, the significance of the difference between the number of sentences produced by each group at the beginning and the end of the experiment was determined by a chi-square test. Next, a z-test for equality of proportions was employed to see whether there was a significant difference in the number of self-affect references at the end of the experiment in proportion to the number of sentences produced. If no significant difference is found between groups in the proportion of written self-affect references, it is probable that the experimental condition has no effect.

¹Cozby, "Literature Review," 73-91.

IV. Validation Measures

To provide additional information about the student population under study, the effects of treatment, and the validity of the content analysis procedures, two outside measures were employed: the 25-item form of the Jourard Self-Disclosure Questionnaire, hereafter referred to as the JSDQ, and the Barrett-Lennard Relationship Inventory, Form OS-M-64, hereafter referred to as the RI. The JSDQ was administered on the first and last days of the experiment, while the RI results are from one administration only, the last day. Copies of the tests and the answer sheets are reproduced in the Appendix, pages 133-141.¹

Jourard (1958) developed his questionnaire for "measuring the amount and content of self-disclosure to selected 'target persons'." "Self-disclosure," said Jourard, "refers to the process of making the self known to other persons; 'target persons' are persons to whom information about the self is communicated."² The 25 items tap six content areas: attitudes and opinions, tastes and interests, work (or studies), money, personality, and body. Subjects respond to each item by indicating the extent to which they have revealed this information to five target persons: Mother, Father, best opposite-sex friend, best same-sex friend, and spouse. In addition, on the advice of Jourard,³ the heading

¹Permission was granted by Sidney Jourard to reproduce the Jourard Self-Disclosure Questionnaire for use in this experiment, and by G. T. Barrett-Lennard to modify and use the Relationship Inventory.

²S. M. Jourard and P. Lasakow, "Some Factors in Self-Disclosure," Journal of Abnormal and Social Psychology, 56, No. 1 (1958), 159-175.

³In a meeting in January, 1974.

"teacher" was added. Two scores were obtained: Total Self-Disclosure, and Disclosure to Teacher.

In a review of the literature on self-disclosure, Cozby (1973) says that while the JSDQ is the most widely used measure of self-disclosure, it does not have predictive validity, and researchers have been unable to find a relationship between the JSDQ and actual disclosure in a situation. He suggests that "researchers interested in personality correlates of self-disclosure employ behavioral measures of disclosure."¹

Jourard (1971) stated that in a dyad, a self-disclosing helper will be responded to by the helpee in an increasingly open and disclosing manner. It is assumed, in this experiment, that as the experimenter models self-disclosure and provides an accepting environment, her students will become more self-disclosing. Their scores on the JSDQ can be expected to increase more than those of students who do not receive modeling and reinforcement. This proposition is stated in operational terms as follows:

Null Hypothesis II. There are no differences between mean responses of the E-group and the C-group on the dimensions of Total Self-Disclosure and Disclosure to Teacher as measured by the Jourard Self-Disclosure Questionnaire (25-item).

To test this hypothesis, a t-test for paired observations from pre- to post- was performed to see if within each group there was a significant change. The test and the results are described in Chapter IV.

¹Cozby, "Literature Review," 73.

In the literature on conditioning of verbal responses,¹ talking about one's self is seen to be equated to self-disclosure as defined by Jourard.² Statements about the self, whether written or spoken, are assumed for purposes of this study to have the same meaning. It is proposed that if students write more about themselves, they will also show higher scores on the JSDQ. In order to test this premise, the following operational hypothesis was stated:

Null Hypothesis III. There is no correlation within the E-group or the C-group between change in scores on Total Self-Disclosure and Disclosure to Teacher as measured by the Jourard Self-Disclosure Questionnaire, and change in the number of self-affect references produced in C-books.

Hypothesis III was tested statistically by pairing the differences in change in Total Self-Disclosure and Disclosure to Teacher for each person in the E-group and each person in the C-group, with his changes in self-affect references, and finding the degree of correlation within each group. Correlation coefficients are shown in Chapter IV.

The RI was used to provide a measure of the relative attitudes of the E-group and the C-group toward the teacher. Would the group which produced a larger number of SAR's also be more inclined to see the teacher as a helping person? Specifically, would the number of SAR's vary with the scores on the RI?

¹See Chapter II of this Dissertation, Part IV, pp. 35-44.

²Cozby, "Literature Review," 73-91.

The RI was developed in an attempt to link cause and effect in the therapy process (Barrett-Lennard, 1962), and it is based on Rogers' conception of the necessary conditions for therapeutic change (Rogers, 1957). The instrument measures the individual's experience of four qualities of interpersonal response: level of regard, empathic understanding, unconditionality of regard, and congruence. RI measures are based directly on phenomenological data from the participants in the relationship.

Barrett-Lennard¹ reports numerous satisfactory reliability studies on the RI. In regard to validity, he points out that since the instrument is based on a specific theoretical scheme, positive findings from studies in which predicted associations have been made between RI measures and other variables support the theory and depend on its acceptance.

In the interest of obtaining responses representing true feelings, students were asked not to sign their names to the RI. Scores are reported, comparisons are made, and results discussed in relation to counseling theory in Chapter IV.²

V. Tabulation of Data

Table A, on page 129 of the Appendix, shows when the various steps in the experiment were initiated and when data were gathered.

Chapter IV includes tables giving data gathered during the experiment, results, comparison, and discussion of these results and comparisons. Other interesting data in tabular form appear in the Appendix.

¹G. T. Barrett-Lennard, "Dimensions of Therapist Response as Causal Factors in Therapeutic Change," Psychological Monographs, 76 (Issue #562, 1962), 43.

²Chapter IV of this Dissertation, Part IV, pp. 90-95.

Experimental group data on numbers of sentences and SAR's recorded in C-books at the beginning and the end of the study are shown in Table 2. Similarly, data for the control group are shown in Table 3. Individuals are identified by code letters.

In Table B of the Appendix, page 130, is found a summary of the actual number of sentences, SAR-positive, SAR-negative, and SAR-positive/negative statements for each group, Time I and Time V, as these were identified by computer analysis. Table C on page 131 shows the proportion of SAR's to the number of sentences. These figures were used in the z-test of equality of proportions which was employed to test the principal hypotheses of the experiment. Z-test results are given in Table 4.

Individual scores for both groups on the JSDQ are listed in Tables 5 and 6. Results of the t-test, to determine significant changes in mean differences in scores between groups, are shown in Table 7. A comparison of the two groups (E-group and C-group) in both categories, Total Self-Disclosure and Self-Disclosure to Teacher, is presented in Table 8. A comparison is summarized in Table D of the Appendix, page 132.

A record of the change made by individuals in both groups in number of self-affect references is shown in Tables 9 and 10. Figures are presented for five categories: SAR +, SAR -, SAR +/-, Total Self-Disclosure, and Self-Disclosure to Teacher. Results of correlation tests in the various categories are shown in Table 11, with a comparison of correlation coefficients given in Table 12.

Scores from the Relationship Inventory, which was administered once, on the last day of the experiment, are shown in Tables 13 and 14. Students did not identify themselves on their inventories. Consequently,

sets of scores are entered anonymously, and are identified only as belonging to the E-group or the C-group. Total numbers for each group for each of the four dimensions measured, and the total score, are shown for comparison in Table 15, with a graphic representation depicted in Table 16.

VI. Summary

The experiment was designed to test whether written modeling and reinforcement would increase written self-affect references. Students wrote their thoughts and feelings in communication books. In the experimental group these were responded to by the teacher; no response was provided in the control group. Computer-based content analysis was performed, and statistical procedures selected to test the central hypothesis. Supporting hypotheses were developed to provide additional information, utilizing data derived from results of the Jourard Self-Disclosure Questionnaire and the Relationship Inventory.

CHAPTER IV

RESULTS AND DISCUSSION

Data from three sources: C-books, Jourard Self-Disclosure Questionnaires, and the Relationship Inventory, generated statistics relevant to the central concern of the study and its theoretical bases. Results of statistical analyses are presented and discussed in this chapter.

I. Differences between Groups in Production of Self-Affect References

Hypothesis I. There is no difference between groups in the equality of proportions of self-affect-references (SAR's) to the number of sentences in Time I and Time V.

Results of a chi-square test to determine the significance of the differences in total number of sentences produced in the two groups are shown in Table 1 below.

Table 1
Total Sentences

Group	Time I	Time V
E-group ^a	742	593
C-group ^b	755	380

$$\text{Chi}^2 = 30.7218$$

Critical Value = 3.84 at .05 level of significance

$$\text{df} = 1$$

^aE-group = experimental group (N = 21).

^bC-group = control group (N = 21)

These results show that while the E-group, which received modeling and reinforcement, did decrease in total sentence production from 742 in Time I to 593 in Time V, the C-group, by contrast, showed a significantly greater decrease, from 755 to 380. Results of the chi-square test show a value of 30.7218, which is considerably beyond the critical value of 3.84 at the .05 level of significance.

The drop in voluntary writing in C-books appears to be a normal phenomenon as the end of the semester approaches, and pressure for completion of regular college assignments mounts. In previous classes where C-books were used,¹ volume of writing dropped at approximately the same time. In this experiment, the reinforced group nevertheless maintained a significantly higher level of sentence production than did the control group.

It may be hypothesized that where the teacher accepted the verbalizations of the student and communicated this understanding and, in addition, modeled self-disclosure, the student recognized that he had a "willing ear", and consequently continued to reveal his thoughts and feelings. This was in contrast to the situation in the control group, where no sign was made to the student that specific utterances (in writing) were "heard" or understood. Further, the teacher's apparent lack of desire to communicate when the student made an initial effort to do so, could have amounted to rejection of the student's thoughts. What he had to say seemed not valued or prized by the teacher. Consequently, the

¹See Foreword of this Dissertation, p. iv.

student's urge to try to communicate was lessened and, indeed, his written output dropped.

While it is of interest to see that under experimental conditions students wrote more in their C-books, the principal question addressed in this study is whether they communicated more about themselves. Self-disclosure is defined here in units that can be selected and tallied by computer: the proportion of SAR units to the number of sentences represents the relative amount of self-disclosure exhibited. The null hypothesis was established to test whether there was a significant change in the proportion of SAR's to the number of sentences.

Tables 2 and 3, on pages 77 and 78, show the total numbers of sentences, and of positive-, negative-, and positive/negative (or ambiguous) sentences in C-books for each person in the E-group and the C-group at Time I and Time V, as identified by Content Analysis II,¹ the computer program used. Table 4, on page 79, shows the results of the z-test for equality of proportions² used to determine the significance of the differences between the total numbers of SAR's in proportion to sentences.

Z-values of -1.44 for SAR-positives, of 1.40 for SAR-negatives, and -.98 for SAR positive/negatives, in Time I, were non-significant at the .05 level ($\alpha = \pm 1.96$). At Time V, the z-value for SAR-negatives was 1.64, which was not significant at the .05 level. However, the z-value of -3.05, in the case of SAR-positives, and the z-value of 3.56,

¹See Chapter III of this Dissertation, Part III, p. 66.

²Helen M. Walker and Joseph Lev, Statistical Inference (New York: Henry Holt & Co., 1953), Formula (3.13), p. 78.

TABLE 2

EXPERIMENTAL GROUP BASIC DATA (SELF-AFFECT REFERENCES)

	Time I				Time V			
	Total sentences	SAR-positive	SAR-negative	SAR-positive/negative	Total sentences	SAR-positive	SAR-negative	SAR-positive/negative
JI	24	10	3	1	12	7	0	0
KL	8	3	0	0	4	0	3	0
NA	25	4	4	0	51	13	5	1
VO	24	10	1	0	40	9	5	1
GE	12	0	0	0	0	0	0	0
AS	35	7	1	2	46	16	0	9
JP	5	2	0	0	27	10	0	0
LN	15	3	0	0	38	19	0	1
MI	27	14	2	1	24	3	2	3
VS	45	11	4	0	20	4	1	1
BR	7	2	1	1	1	0	0	0
HN	4	1	0	0	2	1	0	0
MA	38	11	4	5	43	17	0	1
LR	106	25	11	6	52	15	3	3
CN	22	7	0	0	35	5	2	0
DI	69	22	2	1	56	13	0	0
LP	125	29	5	3	40	13	2	1
TG	45	13	4	0	28	8	1	0
ST	20	5	3	3	29	7	3	1
MU	67	18	1	2	41	18	3	3
JG	19	2	1	0	4	1	0	0
Total	742	200	47	25	593	179	30	25

TABLE 3

CONTROL GROUP BASIC DATA (SELF-AFFECT REFERENCES)

	Time I				Time V			
	Total Sentences	SAR-positive	SAR-negative	SAR-positive/negative	Total sentences	SAR-positive	SAR-negative	SAR-positive/negative
ERA	30	6	3	2	19	5	0	2
THD	27	3	1	0	9	2	1	0
ELD	26	6	5	0	47	7	2	1
LAG	5	0	3	2	0	0	0	0
LAR	8	3	2	0	3	0	0	0
ELG	14	3	4	0	6	0	0	1
LES	60	30	1	1	8	2	2	1
ORC	31	6	3	1	22	5	0	1
YEG	10	5	0	0	42	15	5	0
ERK	51	12	4	3	12	0	3	1
GEJ	36	10	2	0	12	6	1	0
URM	39	4	3	0	32	12	3	0
END	80	16	2	1	25	6	0	0
NAL	21	3	1	0	5	0	0	0
ONP	68	11	3	1	45	7	4	2
RSK	35	3	3	0	32	2	4	0
NOM	32	10	3	1	23	6	3	0
ALP	23	7	0	1	37	6	1	1
ERJ	19	2	2	0	0	0	0	0
OPM	110	33	14	5	0	0	0	0
OWL	30	6	3	1	1	0	0	1
Total	755	179	62	19	380	81	29	11

TABLE 4

RESULTS OF TEST FOR EQUALITY OF PROPORTIONS

	Total Number of Sentences		SAR Positive ^a Sentences		SAR Negative ^b Sentences		SAR Positive/Negative ^c Sentences	
	Time I ^d	Time V ^e	Time I ^d	Time V ^e	Time I ^d	Time V ^e	Time I ^d	Time V ^e
E-group	742	593	200	179	47	30	25	25
C-group	755	380	179	81	62	29	19	11
Z-value			-1.44 (n.s.)	-3.05 [*]	1.40 (n.s.)	1.64 (n.s.)	-.98 (n.s.)	3.56 [*]

^{*}Significant at .05 level for $\alpha = .05$, $Z_{\alpha} = \pm 1.96$.

^aPositive self-affect references.

^bNegative self-affect references.

^cAmbiguous self-affect references.

^dFirst two weeks of experiment.

^eNinth and tenth weeks of experiment.

in the case of SAR positive/negatives, were significant, indicating a change in these two categories.

Students whose responses were attended to wrote more about themselves than students whose verbal expression was ignored. This corroborates the observations of learning theorists who have noted that individuals tend to adopt behavior patterns which have reinforcing qualities. In the course of the experiment, students whose self-expressions were reinforced by their teacher, in writing, interacted with her, in writing, more vigorously than did those whose SAR's were not reinforced. Some evidence of the strength of modeling and reinforcement to increase written communication, and to increase self-disclosure, is shown by the results of this experiment. While the two groups were similar at the beginning of the experiment in production of sentences and of self-affect references, results of the tests show that the E-group, which received modeling and reinforcement, maintained a significantly higher proportion of self-affect references at the end of the experiment than the control group, in two categories out of three.

II. Comparison of Changes in Numbers of Self-Affect References and Changes in Scores on the Jourard Self-Disclosure Questionnaire

The Jourard Self-Disclosure Questionnaire (JSDQ) measured students' perceptions of their self-disclosure to certain target persons.¹ The following hypothesis was selected to see whether there is a relationship between self-disclosure as represented by SAR production, and groups'

¹See Chapter III of this Dissertation, Part IV, pp. 68-71.

perceptions of their degree of self-disclosure as measured by the JSDQ. Self-disclosure to an additional target person, Teacher, was rated, as well as Total Self-Disclosure.

Hypothesis II. There are no differences between mean responses of the E-group and the C-group on Total Self-Disclosure and on Disclosure to Teacher as measured by the 25-item Jourard Self-Disclosure Questionnaire.

Results of the JSDQ for each member of the E-group and the C-group are shown in Tables 5 and 6 (pages 82 and 83).

A t-test for paired observations from pre- to post- was performed to see whether there were significant changes in mean differences in scores on Total Self-Disclosure and Disclosure to Teacher within the groups over the course of the experiment. Results of this test are shown in Table 7 (page 84).

The results of the t-test for paired observations from pre- to post- showed that the t-value of the E-group (.869), and the C-group (2.05), on Total Self-Disclosure, and that for the C-group in Disclosure to Teacher (.3374), were not significant at the .05 level (the t critical value is 2.09). However, the t-value for the E-group in Disclosure to Teacher was significant at the .05 level ($2.18 > 2.09$).

The group which received experimental treatment reported on the JSDQ that it disclosed more to Teacher at the end of the experiment, and the t-test showed the difference to be significant. By contrast, the control group did not register such a change.

TABLE 5

JOURARD SELF-DISCLOSURE QUESTIONNAIRE BASIC DATA (E-GROUP)

	Time I		Time II	
	Total self-disclosure	Disclosure to teacher	Total self-disclosure	Disclosure to teacher
JI	80	10	77	7
KL	75	3	62	1
NA	51	1	64	1
VO	49	0	71	9
GE	96	0	99	0
AS	92	10	91	13
JP	74	0	88	3
LN	90	1	92	2
MI	73	1	56	0
VS	70	1	73	3
BR	103	7	68	0
HN	55	0	59	5
MA	63	1	55	0
LR	60	1	73	2
CN	68	5	68	4
DI	88	0	89	7
LP	77	3	105	13
TG	89	5	96	10
ST	71	2	67	2
MU	75	6	100	15
LG	99	7	99	10
Total	1598	64	1652	107

TABLE 6

JOURARD SELF-DISCLOSURE QUESTIONNAIRE BASIC DATA (C-GROUP)

	Time I		Time II	
	Total self-disclosure	Disclosure to teacher	Total self-disclosure	Disclosure to teacher
ERA	45	0	50	1
THD	77	2	80	7
ELD	65	11	64	11
LAG	71	4	66	1
LAR	63	2	64	3
ELG	73	3	96	11
LES	89	6	87	4
ORC	40	3	38	0
YEG	71	6	66	0
ERK	59	0	70	6
GEJ	69	12	75	16
URM	100	16	107	16
END	80	1	110	8
NAL	58	1	72	0
ONP	68	1	69	0
RSK	68	9	69	7
NOM	101	18	78	5
ALP	68	5	75	7
ERJ	76	5	86	8
OPM	87	9	94	10
OWL	79	6	93	9
Total	1507	120	1609	130

TABLE 7
WITHIN-GROUP CHANGE

	Total Self-Disclosure	Disclosure to Teacher
E-group		
Mean difference (Time II - Time I)	2.57	2.05
Standard deviation	13.566	4.31
t-value	.869 (n.s.)	2.18*
C-group		
Mean difference (Time II - Time I)	4.85	.476
Standard deviation	10.85	4.462
t-value	2.05 (n.s.)	.3374 (n.s.)
df = 20		
alpha = .05		
t = 2.09		

*2.18 > 2.09

Differences between the groups in Total Self-Disclosure and Disclosure to Teacher were tested by application of the t-test to pooled means to compare the differences at the beginning and end of the experiment (Time I and Time II). Results of the test are shown in Table 8 (page 85).

The obtained t-values for Time I (.915) and Time II (.393) in Total Self-Disclosure, were non-significant. The mean scores of the E-group on Disclosure to Teacher at Time I were significantly different than that of the C-group ($-2.007 > \pm 1.96$) at the .05 level. However, at Time II,

TABLE 8

COMPARISON: E-GROUP vs. C-GROUP

	Total Self-Disclosure		Disclosure to Teacher	
	E-group	C-group	E-group	C-group
Time I				
\bar{X}	76.09	71.76	3.048	5.714
S	15.49	15.7	3.294	5.119
Sp	15.35		4.304	
t	.915 (n.s.)		-2.007*	
Time II				
\bar{X}	78.667	76.619	5.095	6.190
S	16.191	17.490	4.847	4.966
Sp	16.853		4.907	
t	.393 (n.s.)		- .723 (n.s.)	
df = 40				
alpha = .05				
t-value = 1.96				

the E-group recorded higher tallies. The difference at this time between the E-group and the C-group was not significant. The E-group had arrived at parity with the C-group, which had not moved ahead at a comparable rate.

The E-group, evidencing more Disclosure to Teacher on the JSDQ at the end of the experiment than it did at the beginning, appeared to corroborate the demonstration of increased self-disclosure through proportionately greater SAR production than the C-group at the end of the experiment.

The results of the tests for Hypothesis II, when matched with those for Hypothesis I, show that the group which increased its perception of itself as disclosing more to its teacher, is the same group which increased its production of SAR's.

III. Degree of Correlation between Changes in Numbers of Self-Affect References and Changes in Scores on the Jourard Self-Disclosure Questionnaire

While the experimental group could be shown to increase significantly in SAR-positives and SAR-positive/negatives, a question still remained as to whether individuals in the groups, who increased in SAR's, were the same persons who raised their Disclosure to Teacher scores. The following hypothesis addresses this issue:

Hypothesis III. There is no correlation within the E-group or the C-group between change in scores on Disclosure to Teacher as measured by the Jourard Self-Disclosure Questionnaire and change in the number of Self-Affect References produced in C-books.

Basic data used in the test for correlation are recorded in Tables 9 and 10 (pages 87 and 88). Results of the tests are presented in Table 11 (page 89) and are summarized in Table 12 (page 90).

Examination of the results shows correlation coefficients ranging from -0.29 to .128. None of the coefficients approaches the .05 significance level of $\pm .444$. This indicates that there is not a consistent relationship between actual production of SAR's and self-perceptions of self-disclosure as measured by the JSDQ. While results of tests for

TABLE 9

CORRELATION DATA

E-group Change from Pre- to Post-

	SAR +	SAR -	SAR ±	Self-Disclosure Total	To Teacher
JI	- 3	- 3	- 1	- 3	- 3
KL	- 3	3	0	-13	- 2
NA	9	1	1	13	0
VO	- 1	4	1	22	9
GE	0	0	0	3	0
AS	9	- 1	7	- 1	3
JP	8	0	0	14	3
LN	16	0	1	2	1
MI	-11	0	2	-17	- 1
VS	- 7	- 3	1	3	2
BR	- 2	- 1	- 1	-35	- 7
HN	0	0	0	4	5
MA	6	- 4	- 4	- 8	- 1
LR	-11	- 8	- 3	13	1
CN	- 2	2	0	0	- 1
DI	- 9	- 2	- 1	1	7
LP	-16	- 3	- 2	28	10
TG	- 5	- 3	0	7	5
ST	2	0	- 2	- 4	0
MU	0	2	1	25	9
LG	- 1	- 1	0	0	3

TABLE 10

CORRELATION DATA

C-group Change from Pre- to Post-

	SAR +	SAR -	SAR +/-	Self-Disclosure Total	To Teacher
ERA	- 1	- 3	0	5	1
THD	- 1	0	0	3	5
ELD	1	- 3	1	- 1	0
LAG	0	- 3	- 2	- 5	- 3
LAR	- 3	- 2	0	1	1
ELG	- 3	- 4	1	23	8
LES	-28	1	0	- 2	- 2
ORC	- 1	- 3	0	- 2	- 3
YEG	10	5	0	- 5	- 6
ERK	-12	- 1	- 2	11	6
GEJ	- 4	- 1	0	6	4
URM	8	0	0	7	0
END	-10	- 2	- 1	30	7
NAL	- 3	- 1	0	14	- 1
ONP	- 4	1	1	1	- 1
RSK	- 1	1	0	1	- 2
NOM	- 4	0	- 1	-23	-13
ALP	- 1	1	0	7	2
ERJ	- 2	- 2	0	10	3
OPM	-33	-14	- 5	7	1
OWL	- 6	- 3	0	14	3

TABLE 11

RESULTS OF TESTS FOR CORRELATION BETWEEN CHANGE IN NUMBER OF SAR'S
AND CHANGE IN SCORES ON DISCLOSURE TO TEACHER (DT) AND
TOTAL SELF-DISCLOSURE (TSD)

	Mean X	Mean Y	Sigma X	Sigma Y	r
E-group					
TSD vs. SAR +	2.05	1.00	4.20	7.50	-0.21
TSD vs. SAR -	2.05	-0.81	4.20	2.61	.09
TSD vs. SAR +/-	2.05	0.00	4.20	2.12	0.13
DT vs. SAR +	-1	2.05	7.69	4.31	- .2099
DT vs. SAR -	- .81	2.05	2.68	4.31	.0946
DT vs. SAR +/-	0	2.05	2.17	4.31	.1285
C-group					
TSD vs. SAR +	0.48	-4.67	4.59	9.62	-0.15
TSD vs. SAR -	0.62	-1.52	4.53	3.49	-0.29
TSD vs. SAR +/-	0.48	-0.33	4.59	1.28	0.10
DT vs. SAR +	-4.67	.48	9.86	4.71	- .1543
DT vs. SAR -	-1.57	.48	3.53	4.71	- .2656
DT vs. SAR +/-	.38	.48	1.38	4.71	.04667

TABLE 12
COMPARISON OF CORRELATION COEFFICIENTS

	E-group			C-group		
	SAR +	SAR -	SAR +/-	SAR +	SAR -	SAR +/-
Total Self-Disclosure	-0.21	-0.09	0.13	-0.15	-0.29	.10
Disclosure to Teacher	-0.21	.094	.128	-0.154	-0.265	.046
r = .444 at .05 level on a two-tailed test.						

Hypothesis II support the notion that groups of high SAR-producers (in terms of written communication with their teacher), also see themselves as high self-disclosers to their teacher, results of the test for correlation do not bear out the hypothesis on an individual, rank-order basis.

IV. Comparison of Scores between Groups on the Relationship Inventory

In addition to testing the major hypotheses, the investigation was concerned with the possible differences in the quality of the relationship between student and teacher. Therefore, the Relationship Inventory (Form OS-M-64) was administered to both groups on the last day of the experiment, yielding the basic data recorded in Tables 13 and 14 on pages 91 and 92. The sum of the scores for all members of each group, on each dimension measured, and the total score, are noted in Table 15 on page 93. While the total score, out of a total of 2,016 possible points, plus or minus, is remarkably similar between groups, there is considerable variation in the sub-scale scores. The total possible score

TABLE 13

RELATIONSHIP INVENTORY BASIC DATA

All Scores - Experimental Group

	Level of Regard	Empathy	Uncon- ditionality	Congruence	Total
1	8	- 5	10	11	24
2	21	-17	- 2	28	30
3	14	-15	- 1	12	10
4	30	14	- 4	35	80
5	32	21	0	22	75
6	11	- 9	2	- 2	2
7	42	27	19	43	131
8	10	13	4	21	48
9	46	35	14	48	143
10	- 4	- 1	- 3	- 7	-15
11	- 7	-14	- 8	4	-25
12	18	5	2	14	39
13	17	-15	-13	8	- 3
14	41	19	22	33	115
15	38	11	15	27	91
16	20	- 5	13	31	59
17	9	- 5	6	1	11
18	36	9	-12	18	51
19	12	- 9	5	14	22
20	- 7	9	19	8	29
21	1	3	2	6	12
Total	393	71	90	375	929

TABLE 14

RELATIONSHIP INVENTORY BASIC DATA

All Scores - Control Group

	Level of Regard	Empathy	Uncon- ditionality	Congruence	Total
1	43	24	30	42	139
2	27	19	20	33	99
3	30	- 2	21	18	67
4	19	-11	12	17	37
5	6	- 6	6	19	25
6	16	-34	14	22	18
7	13	- 2	7	15	33
8	13	15	7	17	52
9	13	-16	-13	15	- 1
10	28	11	1	14	54
11	30	17	25	16	88
12	16	- 2	8	14	36
13	-10	-17	10	2	-15
14	25	-10	5	4	24
15	40	11	18	32	101
16	16	7	- 6	19	36
17	-24	-33	-13	-15	-85
18	32	20	10	24	86
19	18	2	14	10	44
20	28	9	5	21	63
21	13	-11	10	10	22
Total	392	- 9	191	349	923

TABLE 15
SCORES ON THE RELATIONSHIP INVENTORY

Dimensions	Experimental Group	Control Group
Regard	393	392
Empathy	71	- 9
Unconditionality	90	191
Congruence	<u>375</u>	<u>349</u>
Total	929	923

for each group on each dimension is 504, plus or minus. The relationship between scores is shown graphically in Table 16 (page 94).

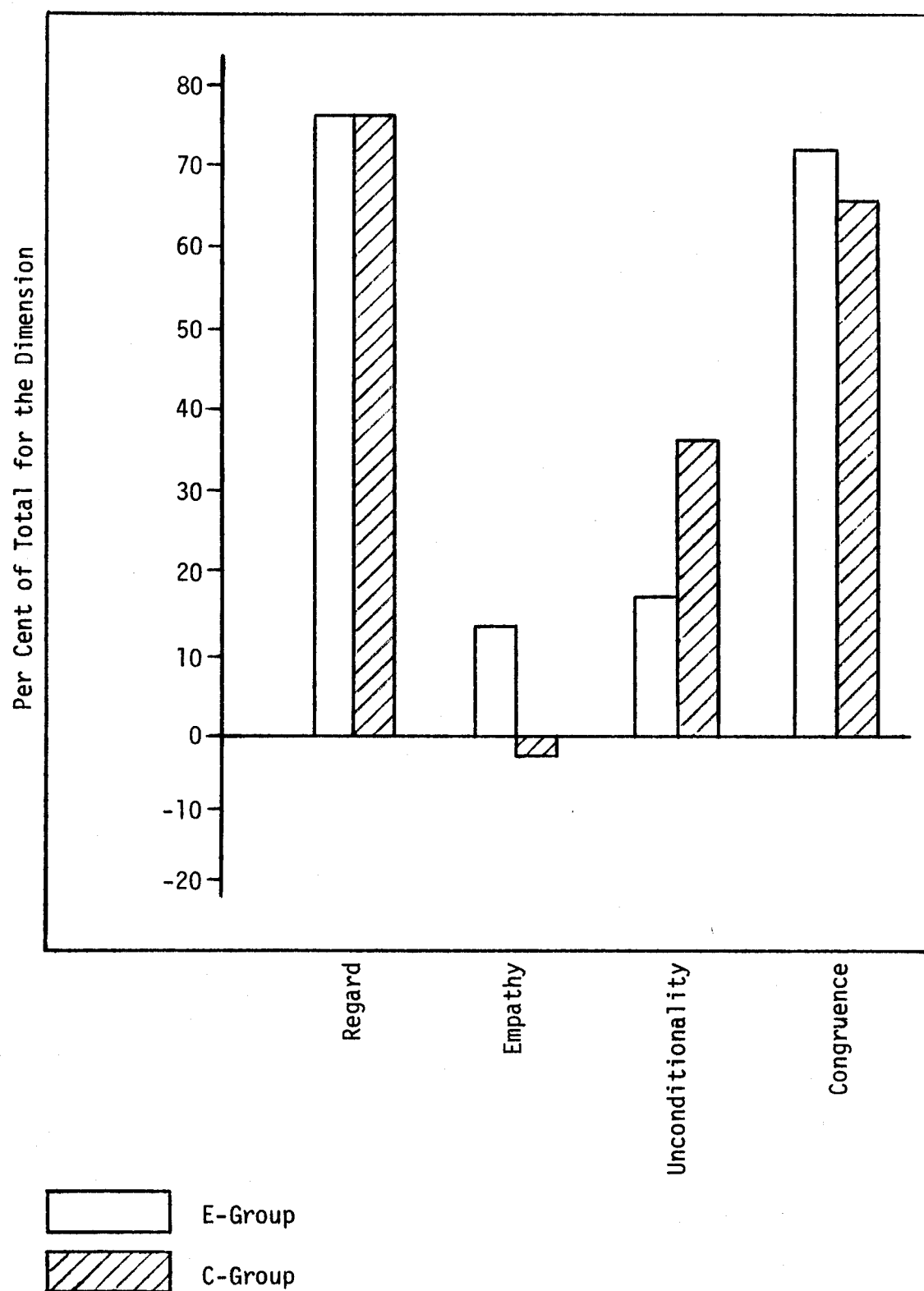
Barrett-Lennard¹ defined the dimensions on the Relationship Inventory (RI) as follows: Regard refers to the affective aspect of one person's response to another; Empathy is concerned with experiencing the process and content of another's awareness in all its aspects; Unconditionality is defined as the degree of constancy of regard felt by one person for another who communicates self-experiences to another; and Congruence denotes the degree of consistency between one's total awareness and his overt communication.

While the students in both groups indicated high affective response to their teacher, and felt she was genuine, both the E-group and the C-group seemed to say she was not particularly empathetic. The E-group,

¹Barrett-Lennard, "Dimensions of Therapist Response," 3-5.

TABLE 16

COMPARISON OF SUBSCORES ON RELATIONSHIP INVENTORY



which received modeling and reinforcement, rated the teacher somewhat higher than did the C-group on the dimension of Empathy. By contrast, the C-group gave the teacher higher rating in Unconditionality: they felt her liking for them was not contingent on what they did to a greater extent than did the E-group. The possibility exists that the E-group, being responded to by the teacher in C-books, could have felt that the teacher's regard for them was related to their making responses in C-books.

If a therapeutic relationship is dependent on relatively high levels of the four characteristics measured by the RI, as was suggested in Chapter II,¹ it would seem that truly optimum interpersonal relationships between teacher and students were not maintained in this instance.

In spite of the variations in degree of positive response to the dimensions involved in the interpersonal (therapeutic) relationship between students and teacher, the experimental group showed a significant gain in SAR's, and also raised their self-disclosure scores to Teacher. The significant preponderance of words alone in the E-group over the C-group in the last period of the experiment indicates that the E's somehow felt impelled to write more than the C's.

A possible deduction from this observation is that the relationship itself may not have had as much effect on the increase in self-disclosure as did modeling and reinforcement.

¹Chapter II of this Dissertation, Part II, pp. 16-25.

CHAPTER V

FINAL STATEMENT

I. Summary

The Problem. Written messages are quite commonly used as an adjunct to counseling, and in special situations writing is the sole means of therapeutic communication. Notes written between teacher and student, diaries and logs kept by counselees, notebooks in which counselor and client communicate, are means by which two individuals, a helper and a helpee, can better work together toward a therapeutic goal. Still, research on the nature of written communication is sparse.¹

It is known that in interview therapy, where the conditions for a helping relationship exist, modeling and selective reinforcement can change the verbal behavior of the helpee (Truax, 1966a).² Self-disclosure, or the emission of self-referent words of affect, can be increased. The question is, can this same effect be achieved through written communication between teacher and student in a classroom? If a specific set of written teacher responses can be shown to increase student self-disclosure, then teachers who are concerned with psychological education in the classroom can use this technique to promote student growth.

Purpose. The basic purpose of this study was to see whether in written communication between teacher and student, self-affect references

¹See Chapter II of this Dissertation, Part V, pp. 44-56.

²Truax, "Reinforcement and Non-Reinforcement," 1-9.

could be increased. It was postulated that selective application of written modeling and reinforcement to students' affect statements about themselves would cause them to disclose more of their thoughts and feelings to their teacher. The implication was that if they brought their values, attitudes and feelings into consciousness for examination, they could better understand themselves and their relation to their environment.

Population. The student population consisted of two classes of 21 students each, who were enrolled in concurrent sections of a beginning course in education at Elmhurst College, a small, denominational, liberal arts institution near Chicago, Illinois. Both sections were team-taught by the same male and female teachers, the latter being the experimenter. No effort was made to select students for the groups: they registered for courses compatible with their schedules. The age range was 17 to 21 years, with one person in each section in his/her late twenties. The experiment extended over a ten-week period during the fall semester in 1974.

Instruments. The Jourard Self-Disclosure Questionnaire (JSDQ) was administered before the students started to write in their C-books, and again ten weeks later, on the day the C-books were gathered for analysis. The Barrett-Lennard Relationship Inventory (RI) was administered only once, at the end of the experiment, and was left unsigned. The JSDQ was used to establish measures of self-disclosure which were expected to be related to the production of self-affect references, while the RI was

chosen to provide information on student perception of the facilitating qualities of the teacher with whom they carried on written communication.

Procedures. The two classes were arbitrarily assigned experimental or control group status, and at the end of the first week, C-books and instructions were distributed and writing began. The first two weeks of the five time periods constituted the base period, and C-book entries from Time I were compared with entries from the last time period, Time V. In the E-group, reinforcement and modeling were administered in C-books at the end of Times I, II, III, and IV.

The experimental treatment consisted in reinforcement and modeling. The teacher wrote reflective, or paraphrasic responses to students' unstructured writing about their thoughts and feelings, and provided from her personal experience, examples related to student statements. Class time was provided in the E-group for reading teacher responses.

At the end of the ten weeks, C-books were collected for computer processing and analysis. Complete transcripts from Time I and Time V were made on IBM cards. The unit of analysis chosen was the sentence, and the category, self-affect references. A dictionary of personal pronouns and positive and negative affect words was drawn from the transcripts, following a model developed by Zimmer and Cowles (1972).¹ A sentence containing both a selected pronoun and a word of affect was counted as an SAR.

Data to be examined were derived from three sources: the C-books, the JSDQ, and the RI. Self-affect references (SAR's) were reported in

¹Zimmer and Cowles, "Content Analysis using Fortran," 161-166.

three categories: positive, negative, and positive/negative, or ambiguous. The number of sentences was counted, to establish proportions. The JSDQ yielded scores in Total Self-Disclosure and Disclosure to Teacher, while RI scores were reported for the dimensions of Empathy, Congruence, Unconditionality, and Regard, plus a total score.

Results

Hypothesis I: There is no difference between groups in the equality of proportions of self-affect references to the number of sentences in Time I and Time V.

From Time I to Time V the total number of sentences for the E-group went from 742 to 593. The total number of sentences for the C-group went from 755 to 380. Results of a chi-square test indicated a difference considerably beyond the .05 level chosen. This indicated that the total number of sentences produced by the E-group decreased significantly less than in the C-group. Decreasing sentence production appears to be a normal phenomenon toward the end of the semester, owing to pressure of regular assignments.

At Time I, the E-group produced 200 SAR-positive sentences, and the C-group, 179. This difference, as tested by a z-test for equality of proportions, was not significant at the .05 level. At Time V, the E-group produced 179 SAR-positive sentences, and the C-group, 81. Results of the z-test showed this difference was significant at the .05 level ($-3.05 > \pm 1.96$). This indicated that the decrease in SAR-positives between Time I and Time V, in relation to the number of sentences produced at each time period, was significantly less in the E-group than in the C-group. In

view of these results, Hypothesis I can be rejected in the case of SAR-positives.

At Time I the E-group produced 47 SAR-negative sentences, and the C-group, 62. The z-test showed that this difference was not significant at the .05 level. At Time V the E-group produced 30 SAR-negative sentences, and the C-group 29. This difference was not significant. Since there were no significant differences shown, Hypothesis I cannot be rejected in the case of SAR-negatives.

At Time I the E-group produced 25 SAR-positive/negative sentences, and the C-group, 19. At Time V the E-group produced 25 SAR-positive/negatives, and the C-group produced 11. Results of the z-test showed that this difference was significant at the .05 level ($3.56 > \pm 1.96$). This indicated that the proportionate decrease in the C-group was significant in comparison with the E-group, which registered no decrease. In view of these results, Hypothesis I can be rejected in the case of SAR-positive/negatives.

Hypothesis II: There are no differences between mean responses of the experimental group and the control group on the dimensions of Total Self-Disclosure and Disclosure to Teacher as measured by the 25-item Jourard Self-Disclosure Questionnaire.

The mean difference (Time II - Time I), on Total Self-Disclosure for the E-group, was 2.57, and for the C-group, 4.85. Results of a t-test for paired observations from pre- to post-test indicate that these differences are not significant in either case, at the .05 level. The

mean difference on Disclosure to Teacher for the E-group was 2.05, and for the C-group, .476. While the mean change for the C-group on this variable was negligible, the t-test showed that the E-group change was significant ($2.18 > 2.09$).

Differences between the groups were tested by application of the t-test to pooled means, and showed no significant differences at Time I or Time II in Total Self-Disclosure. However, at Time I, the mean of the E-group on Disclosure to Teacher was 3.048, and the mean of the C-group, 5.714. This significant difference in mean scores was narrowed to 5.095 for the E-group versus 6.190 for the C-group at the end of Time II, at which point the groups no longer showed significant differences on this dimension.

The E-group, which received modeling and reinforcement, changed significantly between Time I, when the JSDQ was first administered, and Time II, the last day of the experiment, in regard to Disclosure to Teacher, as measured by the instrument. E-group scores were significantly lower than those of the C-group at the beginning of the experiment, but at the end of the ten weeks, the means of the E-group and the C-group were not significantly different from one another. While there may be a question of why the difference in means existed at the beginning of the experiment, Hypothesis II can, on the basis of these tests, be tentatively rejected in regard to Disclosure to Teacher, but cannot be rejected in regard to Total Self-Disclosure.

The Relationship Inventory (RI)

While the total scores for both groups on the RI was almost identical, subscores on the dimensions measured, varied. Both groups rated the

teacher high in Regard and Congruence, but relatively low in Empathy. C-group members indicated they felt the teacher accepted them more unconditionally than did the E-group.

II. Conclusions, Implications, and Recommendations

Results of this study suggest that self-disclosure, as defined in terms of self-affect references, may be susceptible to change through written modeling and reinforcement. In this experiment, the teacher responded in writing to students' self-statements, with the kind of responses which, when made in oral counseling, have been found to help counselees clarify their feelings and move toward insight into their concerns. In the E-group, the helping offered by the teacher resulted in an increased flow of written words, and proportionately more self-referent emotional words, than were produced in the control group.

Presumably, the E-group wrote more because of the attention paid by the teacher to their "feeling" statements. Curran (1968) said that if we show a counselee that we understand by reflecting the feeling inherent in his statements, and communicate this understanding to him in words that have personal meaning, "we initiate a dynamism by which he begins to take counsel with himself through us."¹ Where the teacher responded in writing to students' expressed feelings, they wrote more self-revelatory material.

Since students in both the E- and the C-group scored their teacher low in Empathy on the RI, the question could be raised as to whether the helping responses actually helped to reflect and clarify student thoughts,

¹Curran, Counseling and Psychotherapy, p. 145.

as was intended. With such a variation as existed between subgroup scores, it would be difficult to characterize the over-all relationship as therapeutic. In spite of the lack of evidence on the RI that a strong therapeutic relationship existed, the E-group did produce more verbal material, and more self-affect references, than the C-group. The modeling and reinforcement, which are essentially attending behavior, might, of themselves, be the factor which caused change. If this view were to be accepted, the results would be a demonstration of the power of social learning theory.¹

In view of the evidence that there was no significant correlation between the change in production of SAR's by individual students, and their change in scores on Disclosure to Teacher on the JSDQ, one may wonder whether the choice of SAR's as defined in this experiment as behavioral manifestations of self-disclosure is valid. By designating the SAR unit as a sentence containing a personal pronoun and a word of affect, and by use of a computer program designed to count these units, reliability is assured. Still, it is not known whether these measurable behavioral units accurately reflect internal states of the C-book writers. The machine cannot make judgments regarding the personal meaning of words. Perhaps other pronouns should have been included in the dictionary. Manual raters could have determined whether the writer was referring to himself, for instance, when he used "you" or "one". In some cases a self-reference pronoun might be implied, not written.

The study is directed only toward simple quantitative analysis of changes in self-affect references. Intensity of self-reference can be

¹Chapter II of this Dissertation, Part II, pp. 16-25.

accounted for in computer analysis, as can changes in defensiveness. However, greater sophistication of computer content analysis programming is needed before development of insight, for example, can be detected: "Well, I know I must see this myself -- I can't just be a little child and expect other people to do this for me all the time." While properly trained human judges can identify individuals' meaning with fairly high accuracy, manual rating is tedious.

This study has not focused on insight, only on the production, in writing, of the kinds of expressions that can lead to insight. Future study on the nature of written communication could take the form of analysis of a single, long-time case, using a modification of the basic design developed by Curran (1945)¹ for an oral counseling situation.

It would appear difficult for practitioners of oral counseling techniques to deal with the long time intervals between written responses. Raimy (in Pearson, 1965)² was concerned that the time intervals necessitated by the mechanics of written communication would "allow many interpolated activities," and that "such lengthy intervals would wreak havoc... with cherished interpretations and reflections." In this study, care was taken in planning C-book use, that the teacher's response was typed for easy reading, and was pasted in the C-book on the empty left page of the notebook, directly opposite the student's self-comments, so he could see his statement and the teacher's response as related information.

¹Curran, Personality Factors, in toto.

²Raimy, "Written Communication in Psychotherapy," p. 53.

A host of factors may have militated against obtaining unbiased results in this study. These include: contamination by teacher interaction with students in class; low validity of the JSDQ; inadequate identification procedure for locating SAR's; unstandardized teacher responses to student-writing-about-self.¹

A number of alternate possibilities for studying written dialogue may be suggested. For example, the intervals between responses could be changed, other variables than modeling and reinforcement used, other instruments than the JSDQ administered for validation purposes, different directions for writing given, and modeling of responses could be performed in person or pre-recorded on videotape. Groups other than students could participate in written counseling: for example, housewives, prisoners, or the aged. In the analysis of content, written responses could be compared with spoken, and any of a wide variety of response categories chosen for study. The possibilities seem endless and untapped.

In spite of the shortcomings of the experiment, a body of evidence has been produced which indicates that written dialogue can have characteristics of a counseling relationship. Since there are specific instances where written counseling is necessary, and certain situations, for instance, the classroom, where written communication of a helping nature can be used to good effect, further research should be undertaken to more clearly determine the nature and properties of written communication, so that techniques can be developed specific to this form of helping relationship. It is possible that the view that written communication

¹Limitations of the study are discussed in Chapter I of this Dissertation, Part V, pp. 9-10.

in the therapeutic sense has only adjunctive value in counseling may give way to acceptance of written communication as an alternate and distinct type of helping relationship.

Obviously, this is a comparatively uncharted area which demands further analysis. Since the results of this study are encouraging, it is suggested that follow-up studies be initiated, as well as suitable replications, in order to assess the residual effects of written communication as a form of therapy.

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APPENDIX

INSTRUCTIONS FOR C-BOOK: EXPERIMENTAL GROUP

Instruction for the C-book:

You are asked to write your thoughts and feelings in this C-book (Communications Book), from time to time, and I will respond to you in this book in writing. Try to express your thoughts and feelings as you might in a letter or conversation. All of our communication is confidential. Please follow this format:

1. Date each entry: please be accurate.
2. Write the date in the margin.
3. Leave the rest of the margin blank.
4. Write on one side of the page only.

C-books will be collected every other Friday on the following schedule:

September 27, October 11, October 25, November 8, November 22.

They will be returned to you the following Monday.

The length and number of the entries in a two-week period is optional: it is a matter of what you want to say. I feel that the C-book is an essential element of this course, that this communication can facilitate learning.

INSTRUCTIONS FOR C-BOOK: CONTROL GROUP

Instructions for the C-book:

You are asked to write your thoughts and feelings in this C-book (Communication Book), from time to time. I will read what you write and will indicate that I have done so. Try to express your thoughts and feelings as you might in a letter or conversation. All of our communication is confidential.

Please follow this format:

1. Date each entry. Please be accurate.
2. Write the date in the margin.
3. Leave the rest of the margin blank.
4. Write on one side of the page only.

C-books will be collected every other Thursday on the following schedule:

September 25, October 9, October 23, November 6, November 20.

They will be returned to you the following Tuesday.

The length and number of entries in a two-week period is optional; it is a matter of what you want to say. I feel that the C-book is an essential element of this course, that this communication can facilitate learning.

DICTIONARY

Self-reference words

I
I'd
I'll
I'm
I've

me
my
myself

Positive emotional words

able
appreciate

beautiful

can
close
comfortable
content

enjoy
enjoyable
enjoyed
enjoyment
excited
exciting

fascinate
friendly
fulfill
fun

glad
good
great

happy
help
hope
hopefully

impressed
interest
interested
interesting
involved

laugh
like
liked
love
loved
luck
lucky

need
nice

open

perfect
pleased
pleasure
pretty

relax
relaxed
relaxing
respect

satisfaction
satisfy
stimulating
succeed
success
successful
surprise
surprised

terrific
thrill
tremendous
tried
try
trying

understand
understanding

want
wanted
wonderful
worth
worthwhile

Negative emotional words

afraid
 against
 alone
 anxiety
 anxious
 apologetic
 apprehension
 apprehensive
 attack
 avoid
 awful

 beat
 bore
 bored
 boredom
 boring
 burdened

 compulsiveness
 concerned
 concerns
 confused
 cried

 defeated
 defensive
 depressed
 depression
 detest
 difficult
 disappointed
 disaster
 disgust
 disinterested
 dislike
 displeasing
 disturbed
 doubt
 dumfounded
 dumps

embarrassed
 exhausted
 exhaustion

 failure
 fear
 fears
 fight
 frustrated

 guilty

 hate
 hated
 helplessness
 hit
 homesick
 hopeless
 horrifying
 hurt

 ill
 impatient
 introverted

 kill

 lonely
 loneliness
 lost
 lousy

 mad
 messed
 miserable
 miss

 negative
 nerves
 nervous

panic
 pressure
 pressures
 problem
 problems

 resent
 resented
 restrained

 sad
 sadness
 scared
 serious
 shock
 shocked
 shy
 sick
 sorry
 stupid

 terrible
 tired
 traumatic
 trouble

 uncomfortable
 unfair
 unhappy
 unlucky
 unsure
 upset
 upsets
 upsetting

 weak
 worried
 worries
 worry
 worrying
 worse
 worthless

TABLE A

EXPERIMENTAL DESIGN

	Time I 2 weeks		Time II 2 weeks	Time III 2 weeks	Time IV 2 weeks	Time V 2 weeks	
Experimental Group	JSDQ first day	Base data SAR's	Practice	Practice	Practice	Data to be examined SAR's	JSDQ (Time II) last day
N-21		Treatment	Treatment	Treatment	Treatment		RI
Control Group	JSDQ first day	Base data SAR's	Practice	Practice	Practice	Data to be examined SAR's	JSDQ (Time II) last day
N-21							RI

TABLE B

COMPARISONS BETWEEN GROUPS ON SELECTED WORD CATEGORIES AND ON
CO-OCCURRENCES WITHIN SENTENCES - ACTUAL NUMBERS (SUMMARY)

	Number of sentences		SAR-positive sentences		SAR-negative sentences		SAR-positive/negative sentences	
	Time I	Time V	Time I	Time V	Time I	Time V	Time I	Time V
E-group	742	593	200	179	47	30	25	25
C-group	755	380	179	81	62	29	19	11

TABLE C

COMPARISONS BETWEEN GROUPS ON SELECTED WORD CATEGORIES AND ON
CO-OCCURRENCES WITHIN SENTENCES

	Number of sentences		Proportion: SAR-positive		Proportion: SAR-negative		Proportion: SAR-positive/negative	
	Time I	Time V	Time I	Time V	Time I	Time V	Time I	Time V
E-group	742	593	.269	.302	.063	.051	.034	.042
C-group	755	380	.237	.213	.082	.076	.025	.029

TABLE D

JOURARD SELF-DISCLOSURE QUESTIONNAIRE

COMPARISON BETWEEN GROUPS

(SUMMARY)

		Time I	Time II
E-Group	Total self-disclosure	1598	1652
	Self-disclosure to teacher	64	107
C-Group	Total self-disclosure	1507	1609
	Self-disclosure to teacher	120	130

TEACHER-PUPIL RELATIONSHIP INVENTORY: PUPIL FORM

(Adapted from the Relationship Inventory, Form OS-M-64)

Below are listed a number of ways you might feel about your instructor, Mrs. Collins.

Mark each statement in the left margin, according to how strongly you feel that it is true, or not true. Please mark every statement. Write in +3, +2, +1 or -1, -2, -3 to stand for the following answers:

- | | |
|---|---|
| +3: Yes, I strongly feel that it is true. | -1: No, I feel that it is probably untrue, or more untrue |
| +2: Yes, I feel it is true. | -2: No, I feel it is not true. |
| +1: Yes, I feel that it is probably true, or more true than untrue. | -3: No, I strongly feel that it is not true. |

- _____ 1 She respects me as a person.
- _____ 2 She wants to understand how I see things.
- _____ 3 Her interest in me depends on the things I say or do.
- _____ 4 She feels at ease with me.
- _____ 5 She really likes me.
- _____ 6 She can handle my behavior but she doesn't really understand how I feel about things.
- _____ 7 Whatever mood I'm in, doesn't change the way she feels about me.
- _____ 8 I feel that she puts on an act with me.
- _____ 9 She gets aggravated with me.
- _____ 10 She nearly always knows exactly what I mean.
- _____ 11 Depending on my behavior, she has a better opinion of me sometimes than other times.
- _____ 12 I feel that she's real and honest with me.
- _____ 13 I feel that she really likes me for myself.
- _____ 14 She looks at what I do from her own point of view.

- ☐ 15 Her feeling toward me doesn't depend on how I feel toward her.
- ☐ 16 It bothers her when I ask or talk about certain things.
- ☐ 17 Most days she doesn't seem to care about me - one way or the other.
- ☐ 18 She usually senses what I am feeling.
- ☐ 19 She wants me to be a particular kind of person.
- ☐ 20 I nearly always feel that what she says tells me exactly what she's thinking and feeling at that time.
- ☐ 21 She finds me rather dull and uninteresting.
- ☐ 22 Her own attitudes toward some of the things I say and do keep her from understanding me.
- ☐ 23 My different feelings toward her don't affect how she feels about me.
- ☐ 24 Sometimes she wants me to think that she likes and understands me more than she really does.
- ☐ 25 She really cares for me.
- ☐ 26 Sometimes she thinks I feel a certain way because that's the way she feels.
- ☐ 27 She likes certain things about me and there are other things she doesn't like.
- ☐ 28 She doesn't avoid doing anything that would make our relationship better.
- ☐ 29 I feel that, deep down, she doesn't really approve of me.
- ☐ 30 She knows what I mean even when I have trouble saying it.
- ☐ 31 Her feelings toward me stay about the same: she's not friendly with me one minute and angry the next.
- ☐ 32 Sometimes she's not at all comfortable with me but we just go on without mentioning it.
- ☐ 33 She just puts up with me.
- ☐ 34 She's usually able to understand what's bothering me without my telling her about it straight out.

- _____ 35 If I show that I'm angry with her, she gets angry with me, too.
- _____ 36 She is generally sincere and honest with me.
- _____ 37 She is friendly and warm with me.
- _____ 38 She just takes no notice of some of the things I think or feel.
- _____ 39 How much she likes or dislikes me isn't changed by anything I tell her about myself.
- _____ 40 At times I sense that she is not aware of what she is really feeling with me.
- _____ 41 I feel that I really matter to her as a person.
- _____ 42 She knows exactly how the things I feel seem to me.
- _____ 43 She approves of some of the things I do but definitely not of others.
- _____ 44 She is willing to tell me just what she's thinking about including any feelings about herself or about me.
- _____ 45 She doesn't really like me for myself.
- _____ 46 At times she thinks that I feel a lot more strongly about a particular thing than I really do.
- _____ 47 Whether I'm feeling "high" or "low" on certain days doesn't change how she really feels about me.
- _____ 48 She doesn't pretend to be something she isn't.
- _____ 49 I seem to irritate and bother her.
- _____ 50 She does not realize how sensitive I am about some of the things we discuss.
- _____ 51 Whether the ideas and feelings I express are "good" or "bad" seems to make no difference to her feeling toward me.
- _____ 52 There are times when I feel that what she says out loud is really different from the way she's feeling inside herself.
- _____ 53 At times she acts like she's better than I am.
- _____ 54 She understands me.
- _____ 55 Sometimes I seem more worthwhile to her as a person than at other times.

- ____ 56 I have not felt that she tries to hide anything from herself that she feels with me.
- ____ 57 She's truly interested in me.
- ____ 58 Her response to me is so automatic that I don't believe I really get through to her.
- ____ 59 I don't think that anything I say or do really changes the way she feels about me.
- ____ 60 What she says to me often gives me the wrong impression of her whole thought or feeling at the time.
- ____ 61 She feels a deep sort of affection for me.
- ____ 62 When I'm hurt or upset, she can recognize my feelings exactly, without becoming upset herself.
- ____ 63 What other people think of me does (or would, if she knew) affect the way she feels about me.
- ____ 64 I believe that she has feelings she does not tell me about that keep us from getting along better together.

Code:..... RELATIONSHIP INVENTORY SCORING SHEET Form:.....

64 item forms

Date answered:

Type of relationship (e.g. husband/wife).....

Respondent's position in relationship (e.g. husband).....

Level of Regard		Empathy		Unconditionality		Congruence	
Positive items	Answer	Positive items	Answer	Positive items	Answer	Positive items	Answer
1	3 ^a	2		7		4	
5	3	10		15		12	
13	2	18		23		20	
25	1	30		31		28	
37	3	34		39		36	
41	- 1	42		47		44	
57	3	54		51		48	
61	- 2	62		59		56	
Sum: Sub-total #1	12						
Negative items	Answer	Negative items	Answer	Negative items	Answer	Negative items	Answer
9	- 2 ^a	6		3		8	
17	- 3	14		11		16	
21	- 3	22		19		24	
29	- 2	26		27		32	
33	- 3	38		35		40	
45	2	46		43		52	
49	- 1	50		55		60	
53	- 3	58		63		64	
Sum (for neg. items)	-15						
-1 x Sum: Sub-total #2	15						
Sub-total #1 + #2: Scale Score	27						

^aFictitious data, to illustrate scoring procedure.

THE TWENTY-FIVE-ITEM SELF-DISCLOSURE QUESTIONNAIRE^{*}

Instructions

On the following page there is listed a number of items of information about oneself.

You are asked to indicate on the special answer sheet the extent to which certain other people know this information about you through your telling it or confiding it to them.

If you are certain that the other person knows this information fully -- so that he or she could tell someone else about this aspect of you -- write the number 1 in the appropriate space. If the other person does not know this information fully -- if he or she has only a vague idea, or has an incomplete knowledge of this particular item, write in a zero.

Remember, do not write in a 1 unless you are sure that you have given this information to the other person in full enough detail, that they could describe you accurately in this respect to another person.

Information about Oneself^{**}

1. What you like to do most in your spare time at home, e.g., read, sports, go out, etc.
2. The kind of party or social gathering that you enjoy most.
3. Your usual and favorite spare-time reading material, e.g., novels, non-fiction, science fiction, poetry, etc.
4. The kinds of music that you enjoy listening to most, e.g., popular, classical, folk-music, opera.
5. The sports you engage in most, if any, e.g., golf, swimming, tennis, baseball, etc.
6. Whether or not you know and play any card games, e.g., bridge, poker, gin rummy, etc.
7. Whether or not you will drink alcoholic beverages; if so, your favorite drinks -- beer, wine, gin, brandy, whiskey, etc.

^{*} From Self-Disclosure: An Experimental Analysis of the Transparent Self, by Sidney M. Jourard. John Wiley and Sons, Inc. N.Y., 1971, 198-200.

^{**} Odd-Even reliability coefficient, over all items and 4 target persons = .93 with N = 50 male, 50 female college students.

8. The foods you like best, and the ways you like food prepared, e.g., rare steak, etc.
9. Whether or not you belong to any church; if so, which one, and the usual frequency of attending.
10. Whether or not you belong to any clubs, fraternity, civic organizations; if so, the names of these organizations.
11. Any skills you have mastered, e.g., arts and crafts, painting, sculpture, woodworking, auto repair, knitting, weaving, etc.
12. Whether or not you have any favorite spectator sports; if so, what these are, e.g., boxing, wrestling, football, basketball, etc.
13. The places that you have traveled to, or lived in during your life -- other countries, cities, states.
14. That your political sentiments are at present -- your views on state and federal government policies of interest to you.
15. Whether or not you have been seriously in love during your life before this year; if so, with whom, what the details were, and the outcome.
16. The names of the people in your life whose care and happiness you feel in some way directly responsible for.
17. The personal deficiencies that you would most like to improve, or that you are struggling to do something about at present, e.g., appearance, lack of knowledge, loneliness, temper, etc.
18. Whether or not you presently owe money; if so, how much, and to whom?
19. The kind of future you are aiming toward, working for, planning for -- both personally and vocationally, e.g., marriage and family, professional status, etc.
20. Whether or not you are now involved in any projects that you would not want to interrupt at present -- either socially, personally, or in your work; what these projects are.
21. The details of your sex life up to the present time, including whether or not you have had, or are now having sexual relations, whether you masturbate, etc.
22. Your problems and worries about your personality, that is, what you dislike most about yourself, any guilts, inferiority feelings, etc.

23. How you feel about the appearance of your body -- your looks, figure, weight -- what you dislike and what you accept in your appearance, and how you wish you might change your looks to improve them.
24. Your thoughts about your health, including any problems, worries, or concerns that you might have at present.
25. An exact idea of your regular income. If a student, of your usual combined allowance and earnings, if any.

APPROVAL SHEET

The dissertation submitted by Carol M. Collins has been read and approved by the following committee:

Dr. Manuel S. Silverman, Advisor
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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

5-19-76

Date


Director's Signature